

VISIT...

LANZAROTE
Caliente.COM

**ECONOMIC THEORY OF RATES.
PRIVATE VERSUS GOVERNMENT CONTROL
OF RAILROADS.**

FORMING ONE OF THE TWELVE VOLUMES OF THE REVISED AND
ENLARGED EDITION OF

THE SCIENCE OF RAILWAYS.

BY
MARSHALL M. KIRKMAN.

**ECONOMIC THEORY OF RATES.
PRIVATE VERSUS GOVERNMENT CONTROL
OF RAILROADS.**

**TREATS OF RAILWAY GROWTH; LEGAL STATUS OF RAILROADS; THE BASIS
OF TARIFFS; DISCRIMINATION; THE INFLUENCES THAT DETERMINE
RATES BEYOND PRIVATE CONTROL; NATURE OF RAILWAY COM-
PETITION, ITS EXTENT AND UNIVERSALITY; INTEREST OF
CARRIER AND PATRON IDENTICAL; PECULIARITIES OF
GOVERNMENT SUPERVISION AND EXTENT TO
WHICH IT MAY BE ADVANTAGEOUSLY CARRIED.**

VOLUME VIII.

**NEW YORK AND CHICAGO:
THE WORLD RAILWAY PUBLISHING COMPANY**

1903

INTRODUCTION.

The object of this volume is to explain the principles that govern the traffic of railroads and assign the latter where it belongs with the other industries of the world. An understanding of these principles is necessary to the proper government of those who work for railroads.

The object of every intelligent, honest and patriotic man is the attainment of that which is best. What I have to say in regard to railway rates and government control is actuated by this desire. It is based on what is practicable and true; on what is attainable. If it runs counter to the opinions of the public, or of those to whom the public looks for information, I am sorry. I do not write from the standpoint of the railways, but from that of an observer and student; from the standpoint of one interested in the prosperity of his country, and believing in the intelligence and uprightness of his countrymen.

Much has been said and written about the Railway Problem. So far as rates are concerned there is no problem not known to every student

TABLE OF CONTENTS.

	PAGE
INTRODUCTION,	iii
ECONOMIC LAWS GOVERNING RATES,	7
CHAPTER I. The ethics of trade, including that of carriers,	19
CHAPTER II. Railway rates—their bases and the influences affecting them,	25
CHAPTER III. Railway rates—their bases and the influences affecting them,	49
CHAPTER IV. Railway rates—their bases and the influences affecting them,	95
CHAPTER V. Railway rates—discrimination—pools, . . .	107
CHAPTER VI. Special rates and their relation to commerce,	129
CHAPTER VII. Necessity and value of pools,	141
CHAPTER VIII. Railway rates and government control. Rates may be too low, they cannot be too high. Railway enterprise. Unnecessary railroads—effect thereof. Proper scope of governmental supervision,	161
CHAPTER IX. Railway rates and government control. Railway growth in the United States. Present status. Methods of railroads. The limits within which legislative interference is valuable,	205
CHAPTER X. Value of private ownership and interest. Government control—its inadequacy,	217
CHAPTER XI. Government supervision and control—its limitations. The value of private ownership. Further reference to rates—principles underlying them, . . .	227
CHAPTER XII. Governmental control versus private control. When government control is desirable; when undesirable—its tendencies,	249

	PAGE
CHAPTER XIII. The tenure of railroads under the law. The interstate commerce law of the United States. The requirements of the English law,	265
CHAPTER XIV. Mutuality of interest in the prosperity of railways,	285
CHAPTER XV. Cost of railroads not fully capitalized—the reasons why. Effect on rates,	293
CHAPTER XVI. Local and through traffic—State versus interstate. Impossibility of distinguishing one from the other. Effect on legislative action,	307
CHAPTER XVII. Moderation exercised by wise governments in meddling with the rates of railways and in exercising their police powers; the reasons therefor. The status of railways in England, Canada, Australia, Germany, France, Austria-Hungary, Belgium, Spain and Portugal, Italy, Russia, and Japan,	315
APPENDIX: Table showing decline of freight rates in the United States,	351
INDEX TO AUTHORITIES QUOTED,	353
INDEX,	357

ECONOMIC LAWS GOVERNING RATES.

[NOTE.—This epitome of the economic laws governing railway operations is a partial summary of the accompanying volume, and to those who have not time to study the subject in detail it will afford a glimpse of the conditions that govern the traffic of railways.]

The office of a railroad is to facilitate travel, and to bring producer and consumer together. This is accomplished by the use of such mechanical appliances as the arts of man have placed at his disposal, supplemented by rates that come within the means of the consumer and yet afford a margin of profit to producer and carrier.

The appliances of railroads everyone may study. They are such as traffic requires. But the principles upon which rates are based are not so well understood. A correct and general understanding of them is, however, necessary to the prevention of grave misunderstandings between the public and the carrier. Prosperity, ability of consumers to buy, inducement to producers to create, are all dependent upon a proper application of the rate principle by railroads. No other subject connected with trade is of greater importance. The principles governing it are very simple. Rates must be uniform wherever conditions are alike, and they must be just and reasonable. But

general consumption, influence the charges of other carriers in every quarter of the globe. It is no exaggeration to say that sources of competition among carriers are as numerous as the divergent interests of trade. Because of this they are self-regulative. Their errors of judgment and sins of omission and commission are self-corrective.

Competition is not the "life" of trade, but its balance wheel or regulator. Trade cannot be vigorous or healthy where it does not exist. Supply and demand are the "life" of trade. Love of gain and the necessities of mankind will keep trade alive where there is no competition. But competition sweeps away or reduces to their proper level enterprises that labor under disadvantages. It is in no part the duty of carriers, any more than private individuals, to keep alive unproductive industries or those requiring constant succor; to do so would be to make one portion of the community bear, permanently, the burdens of another. Wherever competition prevails, the fittest survive. It stimulates men to great effort; develops their inventive genius, enforces economical methods, keeps alive interest, leads men to personal sacrifices. Competition is not an unmixed good. Its advantages, however, outweigh its disadvantages. Its hardships are mollified by the devices of men. Thus, those of railroads are mitigated.

Local competition enforces special conditions, but is supplementary to the general competition

injustice or oppression, whether originating with the public or the carrier.

Superiority of private control over that of a government is due to the greater incentive of the former; to the desire of gain; to the fear of loss. Productiveness of property requires that it should adapt itself to every need; that its management should be far-seeing, prudent and wise. Governmental management is lacking in immediate concern; it is mechanical where it should be inventive; indifferent where it should have the fear of loss before its eyes; extravagant where it should be economical.

Superiority of private management over that of governments is not due to any natural superiority of the employes of the former over the latter, but to the fact that the former are impregnated with the spirit of the owner, and are subject to his commanding presence, practical experience and exacting methods.

Mankind is interested in having railroads operated as cheaply as possible, because traffic that does not pay cost of operation cannot be handled. High rates restrict production and therefore heighten cost to the consumer. Their effect is to reduce the volume and profitableness of business. They increase the price of food and clothing, lower the wages of labor and lessen the demand for the latter. In so far as governmental control of railroads is more expensive than private management (and it is always more expensive) all these evils are intensified. They are felt

alike by the farmer, manufacturer, merchant and laborer.*

The science of transportation is said to be the contribution of America to political economy. It was developed under a policy of governmental abstention. Its further elucidation is dependent upon a like policy. Its wisdom has been demonstrated in widespread productiveness; in growth of population and wealth; in unprecedented increase of agriculture, manufacture and mining. There can be no question of its wisdom, just as there can be no surer evidence of the efficiency of carriers than constant and increasing demand for their services.

The railroads of the United States and Great Britain are the most efficient in the world. It is due to the presence of the owner; to his genius and authority; to his watchfulness and supervisory care. The value of such service to those who have no practical genius for business cannot be understood. With them mechanical effect and formulas have too often the same effect as vital forces. They believe government employes to be as capable as those who work under the immediate eye of a jealous and exacting owner;

* The general principles here laid down for the government of railroads were long observed in the United States. Under them its railroad system became the greatest in the world in magnitude and effectiveness of operation. Under them the railways supplied the people with transportation at the lowest rates in the world, and under the operation of these natural laws steadily reduced their rates. For confirmation of this, reference is made to the appendix hereto, showing the decline in freight rates in the United States.

the enhancement of prices, the general hardship that followed then, will follow to-day from like cause in the management of railroads. The advantages of governmental interference are fictitious. Railroads are self-governed, for the reason, as already stated, that the commercial interests they serve demand responsive effort. Railway rates may be too low; they cannot be too high. If too high, they cripple or destroy the business they seek to foster. Great or widespread commercial prosperity is impossible where rates are not equitable. They are the connecting link leading the producer to the consumer, and when economically applied, as they must be under natural conditions, stimulate and protect every interest.

CHAPTER I.

THE ETHICS OF TRADE, INCLUDING THAT OF CARRIERS.

The principles that govern producers and manufacturers generally, govern railroads. But the latter feel more quickly than other property any fiscal disturbance, because they are nearer the people than any other industry ; because their relations are more intimate ; the association of interest stronger and more sensitive. Reciprocally, anything that injures the business or credit of carriers, injures other industries.

The commercial interests of a people are indissoluble.

Anything that injures one class, eventually injures all. The source from which the injury arises is immaterial, whether from unwise legislation, denial of justice, over production, improvident management, or failure of crops. The effect is the same.

If every sin attributed to railroads were true, all their shortcomings would be but as a grain of sand in the sea, a star in the sky, compared to the good their unrestricted management has conferred upon our people. I use the word unrestricted advisedly. Railway owners are not different from other traders. They conform to their surroundings. Their methods are the same as those who haul by water. The rates they charge adapt themselves to the law of supply and demand as naturally as does the price of corn.

The rates of railroads can not be the same from month to month, or year to year, any more than they can be by water. They are the center of conflicting interests, of incessant fluctuations. Those who advocate legislative interference would change all this. They would substitute for this natural world an artificial one, a world filled with block houses, wooden horses, impossible men, impracticable theories. They would sweep away that which is good because evil has attended it; would make the government the instigator of commercial enterprise, rather than business men; substitute auto-

glaring instance known of railway discrimination and injustice. The country has rung for years with condemnatory speeches, editorials, and enactments based thereon. If, however, all that has been said were true, it would only be an exception, an isolated instance, something special, and not by any means sufficient ground upon which to predicate wholesale warfare upon carriers. As a matter of fact, however, the action of the railways in connection with the Standard Oil Company was involuntary, unavoidable, and natural; was such as the necessities of business required, and the needs of the community demanded. Their action was not predicated upon a desire to please the Standard Oil Company or benefit it, but upon the necessities of the case.

is returned tenfold in the intense activity of men, in multiplied interest, broadened intelligence, new inventions, new industries, increased trade, increased consumption, cheapened processes. This is what active rivalry between our railroads has brought us. The future holds out equal promises, but conditioned upon our allowing the capital invested in railroads to manage its own affairs in its own way, conformably, as heretofore, to the greatest good to the greatest number.

The relatively small profits that carriers realize on competitive traffic (discriminating business, so-called), is thus measurably offset by its stimulating effect. The smallness of these profits is explained by the fact that they must be shared with the shipper. Mutuality of interest is present here, as it is everywhere else. Its operation is as unchangeable as cause and effect. While the fruits of competition are wholesome, its processes are curious, oftentimes apparently absurd.*

Wise saws and instances, actual and hypothetical,

* Thus, Mr. Hudson thinks it extremely ridiculous that iron should be shipped from Pittsburgh to New York, to be there re-shipped through Pittsburgh to points in Texas, the object in shipping to New York being to get the benefit of the competitive rate by water from there to the Texas coast. Just as if the shipper in Pittsburgh could expect to get the benefit of the New York rate unless he is on the ground! Can sophistry or legislation put Pittsburgh on the same footing with New York, so far as the advantages that the latter enjoys from transportation by water along the coast are concerned? Manifestly not. The advantage is a natural, indisputable, inalienable one, and one that can not be corrected by extraneous action without endangering the whole commercial edifice.

Nor is it a valid objection to a special rate that it is not generally known; that it is secured by a particular merchant. The fault is not the carrier's, and if, by aiding his customer, he creates a new industry, both he and the community are benefited. Railways can not make men equal. The shrewd, experienced, and energetic business man must not be handicapped because his dull and plodding brother possesses neither ingenuity nor foresight. Nor can his methods justly be made common property, to be heralded broadcast for the benefit of others less capable. I do not consider worthy of notice the statements and innuendoes that carriers have been in collusion with shippers in connection with the use of special rates. There undoubtedly have been instances of that character, but they are unworthy of notice, except to brand as dishonest those who have been guilty. To change our system of commercial practice, because of such instances, is as foolish as to deprecate rain, because the crops of individuals here and there have been ruined thereby. Trade of every kind abounds in special instances. It is creative. It is built up of wise discriminations. Railways are not an exception. Uniformity, here as elsewhere, is the shield of mediocrity, the refuge of the ignorant, stupid, and lazy.

It would be impossible to enumerate the instances that call for the special intervention of carriers. They come into play wherever a mutual benefit may be derived therefrom. The business of railroads is dependent upon the patron being benefited.

ing or lowering is the result of cause; of commercial necessity, not of chance or caprice. A rate can not be raised without cause any more than we can break a link in a chain without ruining its strength.

Public opinion has never made a rate either higher or lower, any more than it has changed the price of potatoes. The reason is because it is based on natural laws. Many traffic managers may, it is possible, believe that they are potent in such matters. But this only shows how ignorant a man may be, and still perform a duty creditably. Public opinion is useful in enlightening the minds of such men; but to assume that it attracts or diverts trade, or lightens its physical burdens, is absurd.

Wherever commerce is remunerative and men are free, it will be carried on. When greatly extended, it requires the coöperation of many, among others, carriers. This means a division of the profits. Each gets his share. The division is the result of compromise—mutual adjustment. It is the duty of the government to protect all the parties in interest. To except the carrier is to cripple his usefulness. If left free, he will perform his part; otherwise not.

It is a great mistake to suppose the country has been benefited, or will be benefited, by laws restricting the freedom of railways. The people may think so, just as they used to think the burning of our grandmothers at Salem benefited them. The task of disabusing their minds from such delusions is a laborious and thankless one. As soon may we

kindly and complaisant, because its welfare is inseparably bound up with those it serves.

The sins and shortcomings of carriers are those common to merchants, bankers, manufacturers, and farmers. They are not criminal. They are not such as to merit special mention or reprobation. Wherever harmful, they will be corrected much more effectively without legislative interference than with it. However, I do not by any means wish to say that they should be overlooked. Criticism is beneficial here as elsewhere. It is like a lash across the back of a lazy horse. It enlivens, but let it be intelligent and temperate—such as the case requires. Let us not damn them as a class, because of isolated instances of wrong, any more than we damn farmers as a whole, because one farmer seeks to repudiate his debts, or has been caught stealing his neighbor's oats. Above all, let us not mix up ignorance, jealousy, and hatred with our justice.

The era of railways precipitates new conditions. These are not yet fully understood. They affect governments as well as individuals. The constitutions of the last century are thought by many not to be able to cope with our gigantic interests, our concentrated efforts, and intense activity. If that is so, let us remodel them so that they will conform to our needs, rather than the needs of our grandfathers. If the central government is not strong enough, let us add to its strength; let us make its constituency represent a higher ideal; let us make its civil service more industrious, intelligent, and

strained, or subject only to such restrictions as the wisdom and moderation of those immediately concerned suggest. In the case of railroads, one of these devices is what is known as pooling; a measure intended to prevent the destructive warfare between corporations growing out of the suspicion and jealousy of those operating them. But while it prevents the undermining and destruction of railroad properties (so detrimental to the welfare of the material interests of a country), it in no sense modifies the general competitive influences under which railroads forming pools must everywhere operate. These influences are world-wide and cover every form of carriage and every kind of market, and are not controlled or even sensibly influenced by the action of local bodies. Competition, except as it may be prevented from assuming a destructive form by the parties immediately concerned, should be free from extraneous influences or restrictions. It is not a matter governments can enforce or control by arbitrary enactments.

The late Mr. George L. Lansing, who gave the subject of railway traffic exhaustive study, said that competition in the case of railroads bore most strongly on those things in which the community had the greatest interest. "The smallest margin of profit over the cost of production is on the necessities of life; the next smallest on the common comforts, and the largest on the luxuries. This effect is not caused by design. It results from the operation of natural laws of trade. The operations of the same laws produce

CHAPTER III.

RAILWAY RATES—THEIR BASES AND THE INFLUENCES AFFECTING THEM.

The value of the service to the consumer, its cost, and the competition of carriers and markets, will ever be potent factors in determining the rates carriers of every description charge. The demand for transportation increases each year; so long as it is remunerative, the supply will keep pace therewith. Its character is at once varied and picturesque. We are more concerned, however, in that of railroads. But the water-courses of the world are of supreme importance. "The Almighty has furnished by far the most important avenue of transportation; our navigable rivers furnish it; our artificial canals furnish it. Our water-ways are abundant and varied. We have thousands of miles of rivers that go unvexed, unharassed, untaxed, to the sea. We have lakes which are inland seas, and upon which there are no charges; they roll and shine perpetually—ceaseless, constant, everlasting competitors of every artificial form of transportation. In their quiet way—as quiet and as resistless as the tides—they confront every railroad corporation in the country and say to it: 'In the regulation of your charges, thus far shalt thou go and no farther.'"* These

* Emory A. Storrs before the Committee on Commerce, February, 1892.

carried would be prohibitory in many instances. The space occupied and the attendant risk are factors. The indirect advantage to be derived from a business also affects the price charged. Railways do a wholesale and retail business, and the rate in particular cases is governed, more or less, as it is with all manufacturers, by the amount of the product. In other words, quantity influences the price. The exceptional relation that certain articles of a standard character bear to the community has been thought to affect favorably the price asked for carrying. The influence, however, arises from the quantity offered, its competitive character, and its relatively small value, and not from the fact that it represents a necessary of life.*

Traffic classifications of railroads are a means of indicating the rate. Local conditions do not affect them, except in purely local matters. Relative values, weight, bulk, and risk, are prime factors. While still imperfect, the thought and labor that have been given them render them marvels of commercial wisdom and skill. The results arrived at embody, as nearly as human intelligence can, the experience of trade and the wants of commerce, the

* "The discretionary power which the managers of railroads are able to exercise in the adjustment of freight tariffs, and which they are able to bring to bear toward influencing the course of trade, is subject to several very important qualifying and limiting conditions, proceeding from competition exerted through the markets and from the direct influence which merchants and other citizens are able to bring to bear toward regulating freight charges in the general course of trade. . . . This is especially the case with respect to the rates for transportation of grain, flour, provisions, and the other necessities of life."—Joseph Nimmo, Jr.

freight tariffs involved little or no classification. Each step toward our present system has been accompanied by increased efficiency. It has made cheap traffic possible, has helped high-class traffic.”* In other words, as the owners of railroads have become better acquainted with the natural laws governing their properties, they have been able to make them more generally useful.

Rates are based upon what the traffic will bear. For instance, a ton of lumber has such small intrinsic value, that if the same rate were charged upon it as is imposed upon dry goods, there would be no lumber carried, for the lumber traffic would not bear the high rate placed upon dry goods. “We hear a great deal said about charging ‘what a traffic will bear;’ and the man who avows this as his principle is compared by anti-monopolists with the robber barons of the Middle Ages. In the proper meaning of the principle, the case is just the opposite. Charging what the traffic will bear is a very different thing from charging what the traffic will not bear. . . High rates are not to be regarded as a tax which could be removed if the low rates were abandoned. When we come to examine the practice of European countries, where the attempt has been made to base rates on the cost of service, we shall find these views confirmed; and we shall further find that the effort to prevent discrimination as a system results in leveling up rather than in leveling down.”†

* Arthur T. Hadley, “Railroad Transportation,” page 118.

† *Ibid.*, pages 76, 124.

Intelligent discrimination is the governing principle of railway classifications, as it is of everything else connected with trade. Uniformity is impossible. The rate takes cognizance of the traffic from every point of view. To attempt to base it on any other ground "would give us dear food and dear fuel, and would injure both the railroads and the districts which they serve."*

Railways may and do agree among themselves to maintain a uniform rate; that they will act together in increasing or diminishing it. This is both practicable and just, and in harmony with well-established practices. It is not inconsistent with the adjustment of rates based on their value and the fluctuations of markets. Managers may think they raise or lower rates of their own volition. They do not. Conditions are superior to men, and while carriers are sometimes loth to recognize it, they are made aware of the fact by their inability to maintain a rate inconsistent therewith. Herein lies the protection of the community from acts of injustice upon the part of railroads; from anything more than momentary hardship. If carriers, and not the markets of the world, fixed the rate, then it might be wise perhaps, (I don't say it would), to ask the intervention of the government. But the carrier is a passive agent merely. Wherever a product must seek a general market, or its price is thus determined, the law of supply and demand fixes the rate the carrier shall charge for transporting it. In other cases special influences intervene. In prac-

* Arthur T. Hadley, "Railroad Transportation," page 114.

reduced rates would be carried on without such concessions; that they are, in fact, the result of collusion. I cite the case merely to illustrate the length to which folly and ignorance may extend, not as requiring an answer.

The carriers of the world reach every important source of supply and demand. This is why an unjust rate is impossible. To attempt its enforcement would be to cripple the industry it is to the interest of the carrier to foster. Markets are no longer local. Railroads have ceased to be so in their ability to control rates. A consolidation of all the railroads of a great country, like that of the United States, would, however, destroy competition in many minor directions, and would, consequently, entail more or less hardship. But it would still be preferable to government management, because it would be intelligent and business-like. A combination of all the carriers of the world is necessary to the creation of a complete monopoly. The railroads of every country, "the tides of the seas, the currents of rivers, the swells of lakes, the waters of canals, and the rivalry of adjacent nations, enforce transportation conditions."* Combinations of a local nature do not destroy or cripple competition. Nor do limited pools sensibly affect it. On the contrary, they strengthen it, because they render it more intelligent. Monopoly is no longer possible, except in the case of local products, such as gas, water, street railways, and the like. So long as car-

* G. R. Blanchard, "Politico-railway Problems and Theories," page 43.

millar to the baker, though the one is but a few hundreds of yards, and the other as many hundred miles."*

The influences to which we owe the low rates of American railways—rates much less than those of other countries—are, in the main, due to better facilities and more economical methods, superinduced by intense and widespread rivalry. The immense distances traversed, and a desire to secure a load both ways, have had something to do with it. The amalgamation of rival and continuous lines has been beneficial. Combinations of sympathetic interests that are the result of natural causes are always good. Among these may be mentioned the consolidation of continuous railways and the formation of pools. On the other hand, combinations occasioned by extraneous influences, such as those caused by the interference or oppression of the State, are not likely to be so beneficial, because they are more or less artificial.

Englishmen and Americans make the same complaints in regard to the rates of railways, namely, that they are excessive; that special advantages are afforded competitive interests; that goods are in some cases carried at unduly low rates, losses being recouped elsewhere. Heretofore, England has permitted carriers to charge what the traffic will bear, to make special rates to meet particular circumstances. The necessity and value of these provisions have been generally recognized in every country where railroads are operated, save the United

* Arthur T. Hadley, "Railroad Transportation," pages 103, 104.

States. In the United Kingdom the supervisory power of the government has been merely nominal. The people have had greater confidence in the ability and wisdom of their business men than in their government.* On the other hand, the belief in the efficacy of State interference in the management of railways is cardinal in many parts of the United States. Thus, the commissioners of one great State openly boast of their active influence in determining what railroads shall charge, claiming that within the restricted area of their activity they have, through arbitrary action, placed competitive and non-competitive business on the same plane; that they have, in fact, subverted the law of competition upon which the world is dependent for its development, and the comforts and the necessities it enjoys. They openly boast that, under the powers they exercise, "competition which could only operate at certain points touched by independent lines, if left to natural laws, is, by the statutory penalties denounced against discrimination, made to operate equally at all points, intermediate as well as directly competing." I leave the reader to judge as to what the effect would be if similar powers were exercised by every government. Nine-tenths of the world would have to be abandoned. No more monstrous proposition ever found birth in the brain of civilized man. The commissioners in question do not regard the exercise of their prerogatives as unjust or oppressive. "To say a railroad company may discriminate in any

* Their disposition to depart from this practice, as evinced in a recent act of Parliament, is to be deplored.

people have no adequate protection but its sovereign power. Again, the railroads may be said to lie at the very foundation of society, as organized in America. In the west, at least, the whole social fabric rests on railroad transportation, which brings into play the common-law axiom that 'When private property is so used that a public interest attaches to it, it is no longer strictly private property, and the right of the legislature to exercise control of it by statute can not be questioned.' " * When we remember that the traffic of railways is governed by competitive influences as much as that of water transportation, the concessions of the government are found to be nominal, rather than real. They do not create a monopoly, or special privilege, any more than they do when the government licenses a steamboat, and so far as the justice of the case is concerned, the government has no more right to interfere in the case of railways than in the case of steamboats. All arguments predicated upon the assumption that railways are monopolies are fallacious and misleading. But if the right of the State to interfere is allowed, the manner in which that right shall be exercised is still of the greatest importance. Its enforcement requires the exercise of candor and tact; a due observance of the natural laws that govern trade. "The right of public control must be exercised within those constitutional and legal limitations which environ all legislative or administrative acts. Regulation does not mean con-

* From a paper read before the Engineers' Society of St. Paul, by Edwin E. Woodman, in April, 1889.

believe that the same rate should be charged, relatively, for car lots as for one hundred pounds; that one hundred pounds should be the basis. The effect of this, of course, would be to reduce enormously rates on small shipments. Car lots afford a more rational basis. The train load is a still more conservative estimate. That a distinction should be made between wholesale and retail shipments, there can be no doubt. "Railroad transportation is a commodity which is bought and sold as much as coal is; and to say that it should never be dealt in except at retail prices, or, as has been said, that one thousand cars should never be shipped at a less rate per car than one train or one single car, is the same as saying that coal should be sold as cheaply for one car load as by the cargo making a hundred car loads. It is wholly a question of expediency, to be answered only by those directly interested. To do away with wholesale trading would limit distribution and consumption, and would, in the end, hurt the small consumer. The world needs wholesale traders as much as it needs retail traders. Wholesale prices, whether of transportation or other commodities, so far from being an unjust discrimination, are of the greatest benefit, because they encourage distribution, and make possible the carrying of large local stocks, thus enabling the retail traders to do a large business on small capital, which means a small profit on each transaction."*

Generally speaking, the interference of governments in the commercial differences of a people is

* Letter of C. E. Perkins.

challenge the vigilance, but not necessarily to excite the alarm, of the foreign investor.”*

Rates, to be equitable, must be self-adjustive; must conform to their environment; must be based on the property of the carrier, and the traffic handled. “The more the attempt is made to control the rates of traffic by statute, the higher the rates charged must be, because it is very plain that the rates on railways, which have a small traffic, can not be reduced by statute to the level of those which have a heavy traffic, unless the State takes them and operates them at a loss; and therefore it follows of necessity that statute interference can only end in an advance of the low rates now charged on the lines having a heavy traffic to the higher rates of the lines having a small traffic, if the statutes do not prove to be inoperative.”†

The principles of transportation, and the competition of carriers, occupy the attention of writers and publicists more and more, as the relation of the subject to the internal commerce of the country becomes more and more apparent. The capable, the superficial, the ignorant, and the vicious, alike have a word to say. A recent writer‡ devotes a volume to the competitive practices of railroads. He sees no cure for the petty acts of injustice he chronicles, except legislative interference. It is very much like devoting a book to the disputes of

* John Swann, M. A., “An Investor’s Notes on American Railways,” page 188.

† Edward Atkinson, “The Distribution of Products,” page 809.

‡ A. B. Stickney.

contracts to pool their competitive business. That is the method of procedure in other countries. It should be here.*

Not only do the roads of England and the continent make pools, but the use of preferential rates is universally recognized as necessary and beneficial.†

To separate the rate-making power from the rate-maintaining power, is to separate the body from the mind, to prevent concerted action, flexibility, facility, knowledge of the situation. No one save the carrier can fulfill the duties that attach to the power to make rates. He is in daily and hourly contact with shippers. A remedy for the evils of rate-cutting is not in taking the busi-

* Those who are able to judge believe that the law of the United States prohibiting pooling, if not repealed, will have the effect to bring about a consolidation of all the railroads in the country; unless, indeed, railway owners find some practical means of avoiding it, i. e., of operating their roads according to the real interests and wants of the country.

† Thus, the rate per ton on meat from Liverpool to London is 25s., while it is 45s. from London to intermediate points. To the local mind this is aggravated by the fact that the smaller rate is on imported meats. Another instance is the tariff on sugar from Greenock, at a rate of 1.09d. per ton per mile, while from London it is 2.13d. This last was made a matter of complaint to the government of Great Britain. The conclusions of the latter were as follows: "It does not appear to your committee that such a result" (as the closing, namely, of southern markets to Greenock sugar for the benefit of London refiners), "would be either just or reasonable. . . . This competition can not but be advantageous to the public. That Greenock sugar refiners should be in the same market as the sugar refiners of London, while it may be a grievance to London refiners, must be an advantage to Greenock refiners, and can not be a disadvantage to buyers of sugar."—W. M. Acworth, M. A., "The Railways and the Traders," pages 14, 15.

will not attempt to do so when they discover the nature of the load they are carrying. Neither cities nor carriers find occupation or place longer than they respond to a natural want of the community. Trade centers, maintained by rival markets and the influence of competitive carriers, are valuable to a community. Those maintained by government bounty are not. The community in one case receives the benefit of a local tax. In the other, a neighborhood is made the beneficiary of a general tax. Similarly, this is a distinction between private and public ownership of railroads.

In America, competitive influences have from the start had free play in the building of railroads, and the adjustment of rates. To this fact we are indebted for our unexampled commercial wealth. England more nearly resembles us in this respect than any other country. Practices elsewhere are generally alike; Germany is, in the main, typical of the whole. Its system, like its army and civil service, is a cast-iron one: "So far as they can, they have eliminated competitive rates altogether. America has given free play to competition. England has taken a position midway between the two. . . Every time we (the English), yield to German ideas, and move away from the American principle of giving competition full swing, we may do injustice between two competitors, whether they be individual traders or rival towns, but we unquestionably raise the general average of English rates."*

* W. M. Acworth, M. A., "The Railways and the Traders," page 227.

mans found that a tariff based distinctively on cost was an impossibility. The competition of carriers and markets forbade it. A well-known writer on the subject* says that a tariff based on cost would result in three things: " Either of which would upset the business of the country: 1st. There would be little or no classification of freights. Grain, lumber, coal, iron, shoes, dry goods, groceries, drugs, and chemicals, would all have to pay near about the same rate per hundred pounds per mile, and that rate would have to be something like the average of the present rates charged upon the different classes of freights. The higher classes of freight would be a good deal lowered, and the lower classes would be materially raised. The result would be that cheap and heavy products could be no longer transported over the distance that they are now carried. 2d. The rates on through freight would have to be proportioned very nearly to the distance hauled; the rate from Chicago to Boston, for instance, would be materially higher, and the rate from Chicago to Baltimore materially lower, than the rates from Chicago to New York, because there is difference enough in distance to make a difference in cost. 3d. Roads having lowest grades and most favorable alignments would have lower rates than their competitors, and would monopolize the business, to the entire exclusion of those lines which traverse more difficult and expensive territory, and upon which the cost of transportation was greater. And the tide once turned, the evil would multiply itself; for the rates

*E. P. Alexander.

not detract from its value; on the contrary, it adds thereto by insuring its perpetuation; by making it more sustained, intelligent and discriminating. Intelligent selfishness is the basis of commercial wisdom and energy—the basis of commercial growth and perpetuation.

Local rates, quite as much as others, are based on equitable grounds. Production could not thrive otherwise. Water does not more surely seek a lower level, than trade abandons a location unfavorable to it. Railroads can not, if they would, maintain an inequitable local tariff. To do so would be to depopulate the country tributary to them.

Local rates must be such as the nature of the traffic requires and in harmony with good business usage and the customs that govern such matters. Every carrier puts his patrons on an equality with others, so far as he can. He aids them in every way. But it is not a matter he can wholly regulate. Location and adaptation have much to do with it. If the producer is unfavorably located, it is not in the power of the carrier to remedy his lack of judgment. If the latter locates his road wisely, builds cheaply, and operates economically and efficiently, he has done everything he can to aid the community he serves. All these conditions have been observed in America. Our railroads are not only built more cheaply than in other countries, but they are worked more economically. Their operations, however, are not generally understood. Many of our laws are predicated upon a belief that they act automatically. The competition that exists in

mon law attaches to that term, namely, an exclusive privilege secured by public authority, or resulting from the practical exclusion of all competition.”*

Competition governs prices where we least expect it, and controls industries that are apparently without rivalry. It governs the local rates of railroads, as well as those recognized as competitive. A particular district or carrier does not exercise a monopoly in any article, so long as that article is produced in appreciable quantities elsewhere. Nor can the carrier exercise a monopoly unfavorable to local patrons, so long as others are not governed by similar conditions.

* George Ticknor Curtis, “The Doctrine of Presumed Dedication of Private Property to Public Use,” pages 8, 9.

CHAPTER IV.

RAILWAY RATES—THEIR BASES AND THE INFLUENCES AFFECTING THEM.

An important factor in determining the rate is the attendant risk of handling the traffic. Common carriers are insurers, within certain prescribed limits. The insurance covers loss, breakage, and fire, in the case of goods, and accident and life, in the case of passengers. In many instances the risk is scarcely appreciable—does not sensibly affect the rate; in others it is as marked as the cost of handling. Whatever it may be, it influences the rate to that extent, and being of universal application, is general in its effect.

The principles that govern the making of rates, while in the main identical in different countries, are affected somewhat by local conditions. In England and the United States, two things, above all others, operate: the value of the transportation, (determined by the thing transported), and the cost of carriage. The value of the service rendered is generally the difference between the value of a thing at the point of shipment and at its destination. More than this can not be charged. If it were, traffic would not be offered. In determining the cost of transportation, averages only can be safely used. We can not assume that new business will

cost less than the average of that which already exists. A French writer,* however, disputes this. He thinks the lowest price at which a carrier can transport a unit of traffic, or ton of freight, one hundred miles, with advantage to himself, is not the average cost of carrying a ton one hundred miles, but is the cost of carrying an "additional ton" one hundred miles. He says: "If trains are run empty, the cost of handling them is a trifle less than if they were run full; but the difference is not large; and so long as there is not traffic enough to compel an increase in the number of trains, the transportation of a ton, in addition to that which already exists, involves, so to say, no additional expenses. Even when the number of trains is increased, the increase in the expense is far from being proportional to the increase in traffic." Mr. Colson's argument is more specious than trustworthy. No rate can safely be made that does not assume that the cost is equal to the general average for such freight. Any other basis would quickly bankrupt a company, because it would leave no margin for the constant enlargement of expenses that is going on. Not only this, but provision must be made for a return on the additions to the property that new business engenders. For, while the original cost of a property is but little considered in making a rate, additions to a property are not lost sight of in that connection. Thus, if rates are unprofitable, no additions or extensions to

* C. Colson, of the Government Council of the French Railway Service.

profit helps to eke out less productive traffic; to make the railway as a whole productive. On the other hand, "traffic for which the demand is sensitive to price, and which can be got only at low rates, will contribute little."*

The business of railways governs itself. It adjusts itself on equitable grounds of the greatest good to the greatest number. If carriers charge too much, their business diminishes or ceases, their revenues are cut off, their bonds and stock depreciate, that upon which they depend to live ceases. Self-interest constantly intervenes. Herein lies the protection of the community. Governments are not influenced by this subtle and all-powerful law; they may make arbitrary rates, and if industries are ruined thereby they claim the crown of martyrdom as public benefactors, in this, that they have prevented discrimination! They pose as public benefactors, when they ought to be branded as asses.

The distinctions that exist between natural and artificial laws, between a temperature regulated by the atmosphere and one fixed by individuals, is not more marked than the difference between a business carried on independently by private parties and a business in which the government presumes to meddle. Governments should have nothing to do with railways, except of a supervisory character, in countries having the commercial enterprise to construct and operate such properties. The intelligence and facilities of government are but one step above

* F. W. Taussig, "A Contribution to the Theory of Railway Rates."

moving it. If it does, the traffic is advantageous to the railway, even though the excess over operating expenses is so small that, if the same proportion held on all traffic, very little would be earned towards interest and dividends. It is a commonplace in the discussion of railway rates that different sorts of traffic contribute in very different degrees toward paying fixed charges and dividends. Some classes of traffic, of the sort that can be got only if the rates are low, contribute little; others, of the sort that come even though rates be high, contribute much."*

In considering the relation of rates to cost, we must remember that there are two kinds of expenses: those relating to traffic, and those not directly affected by traffic. Their influence is not the same. Economists illustrate the principle of cost as it affects the price by the case of wool and mutton. The producer can not base his price on the cost of producing the wool and mutton separately; but he will not sell his wool for less than it costs to shear, nor his mutton for less than it costs to dress. Beyond this, the price he obtains for his products is determined by the law of supply and demand. So in the case of railways and manufacturers making a diversity of articles. Their products are the result of joint cost. The manufacturer will not sell for less than the separate cost of the distinct classes of goods he manufactures; beyond this, the prices he obtains are fixed by the law of supply and demand. Nor will the carrier, as a rule, transport

*F. W. Taussig, "A Contribution to the Theory of Railway Rates."

passengers as commodities merely, possessing relatively different values analagous to the different values of other commodities.

[NOTE.—Even so imperfect an explanation of the interests that affect transportation, and that are in turn affected by it, as I am able to give here, necessitates, in their collateral bearings, frequent repetition of certain cardinal principles. This the reader will understand, and, I trust, excuse. I have endeavored to restrict this reiteration as much as possible. — M. M. K.]

in its exercise, experience, intelligence, and due regard for the necessities of commerce and the rights of all concerned, have been duly considered. If a rate is unjust, let us call it so. Properly, a discriminatory rate is just, because intelligently made. There doubtless have been cases where it was unjust. But such cases do not constitute a rule; are not to be set off against the general good, any more than defects in particular individuals outweigh the strength of all. The marked disposition of railway critics to attach a general and exaggerated importance to particular acts, renders all they say unworthy of confidence. They manifestly lack either honesty or intelligence. If a railway manager is dishonest, let us put him in jail. But let us not handicap all railway managers because of his sin. Making discriminatory rates is not discretionary with railroads. It is a duty they owe the community—an obligation. This they have recognized and carried out.* For these reasons, the attempt to make it appear that the exercise of discriminatory power by railroads in making rates is injurious to the interests of the people, corrupt, unbusiness-like, or abhorrent, can not be too severely condemned. Likewise, public intelligence should condemn those who claim that carriers should enforce equal charges for

* "Every step leading to the establishment of the rates that shall be charged for transportation begins and ends in the exercise of discretionary authority. Rates are never measured exclusively by the weight of the articles carried, or by the bulk, or by the cost to the carrier of transporting them, or by the value to the owner in having them transported."—Fourth Annual Report Interstate Commerce Commission, page 14.

dishonest thing; we do not eschew eggs because dogs suck them when opportunity offers. No great and beneficent thing was ever more unjustly abused, more grossly misrepresented, more maligned, than our railroad corporations. The vastness of the theme, the little knowledge that the majority possess of it, the universal interest attached to the subject, conspire to make it the focus of public misrepresentation and fraud. "By open discrimination, or by secret rates, drawbacks, and rebates, a few railway managers may subject to their will every business in which transportation is a large element of cost, as absolutely as any Oriental despot ever controlled the property of his subjects. No civilized community has ever known a body of rulers with such power to distribute at pleasure, among its mercantile classes, prosperity or adversity, wealth or ruin. That this is no abstract or remote danger to society, is plain to any man who will look at the condition of trade and of mercantile morals in the United States to-day."* How vivid! But how absurd! how untrue! Our commercial morals are equal to the highest in the world—to those of any people who ever existed. The picture is overdrawn, feverish, fantastical, untrue. Managers have no such discretion. They could not exercise it if they had. The idea that a great internal industry upon which the convenience, profit, and enrichment of the world rests, is dependent upon such discretion, is unworthy the intelli-

*J. F. Hudson, "The Railways and the Republic," pages 178 and 179.

the few; of a particular individual, district, class, or interest. Every such advantage is esteemed fair. In trade, misrepresentation is a common weapon. No argument is too absurd, no utterance too puerile, if it accomplishes its purpose. Men go to every extreme to make money or to gain the end they seek.

In one breath the critics of railroads deplore competition between railroads as injurious to the interests of such carriers. In the next they refuse them the right to pool. They advocate competition, but deplore its effect as distributing the burdens of life unequally. They clamor for governmental intervention, but see only ruin to the country if it is necessary for capital to secure the approval of some official body before embarking in railway construction; they would not "place the freedom of trade under the control of bureaucracy and set the claims of spurious railway issues above the freedom of honest capital."*

So far as a uniform rate can be applied to traffic without transgressing any law of trade, it is enforced by carriers. They should be accorded

* J. F. Hudson, "The Railways and the Republic," page 291. I trust Mr. Hudson will excuse me for quoting him so often. The reader will understand, however, that I recognize in him an honest exponent of that enormous army of writers and talkers, who, with an exhaustless rhetoric and abundance of time, use up both in citing special cases of wrong on the part of railways, and from these special cases seek to deduct general conclusions. Mr. Hudson is brilliant, vehement, excitable, tempestuous, flooding his subject with a torrent of words and ideas, the ablest of his class; a writer worthy of a better cause.

No country can prosper that denies to its carriers the right to make a lower rate when the maximum can not be attained. No country can be built up, or its greatness maintained, in any less practical way. But a low rate will never be granted, if afterward it is sought to make it the basis of other and more productive business. Fairness and frankness, here as elsewhere, are the price of commercial activity, of investment, and business association.

In conceding to rival carriers the right to pool, it must not be forgotten that the laws that govern rates, namely, competitive markets and the self-interest of carriers, operate just as effectually where there is a pool as in other cases. Rates must always be such as to secure the business, such as to afford every one a margin of profit. The mechanical effect of a pool is to mollify the natural jealousy and distrust that exist between carriers; to prevent their making ruinous concessions under the apprehension that their rivals are thus acting; to prevent injurious rate wars that react unfavorably on both communities and carriers.

Pooling does not have the effect to make carriers neutral. Their desire to maintain their strength and add to it, will always lead them to exert themselves to the utmost to popularize their routes and attract business to them. Its effect is to steady rates. It does not prevent legitimate competition. A pool is, at best, only temporary. For that reason carriers dare not let their properties run down, dare not let their traffic be diverted for lack of facilities or effective service. The public, therefore, is

ours. While governmental authorization of pools is desirable, it is not absolutely necessary. Indeed, it would not be at all desirable, if it were the entering wedge to governmental interference generally. The ingenuity of carriers will provide a way to make it effective, if they are left unimpeded. Its purpose is not to carry out private measures. Such a purpose would be reprehensible. It is a matter of public concern, because its object is the protection and perpetuation of the properties it affects. Instances may have occurred where the purposes of pooling have been perverted; but they cut no figure. No one thinks of putting the world under police surveillance because particular men have gone astray.

We do not refuse to recognize an economic law because it is sometimes abused. The instances that are cited where private greed has taken advantage of pooling to accomplish personal ends, are something apart and exceptional; do not in any way vitiate the principle of good that lies back of it; do not lessen, generally, the desirability of permitting men to enter into business contracts and agreements with each other, and of protecting them therein.

The principles of pooling and the benefits it confers have been lost in a maze of untruthful and sophistical statements. One of its objects is the prevention of unnecessary discrimination between persons and places. A directly contrary purpose is ascribed to it.* So long as rates are determined by

* "Admitting that the pool will abolish the discriminations complained of, it will also abolish the freedom of trade movements and the operation of natural laws of commerce, in whose defense alone the

influences over which particular carriers have no control, it will be safe to entrust the latter with discretionary power. Moreover, their interests and the interests of their patrons are inextricably interwoven; the injury of one is the injury of both. Herein is a country's safeguard—a safeguard simple, effective, and intelligent beyond extraneous influence or authority; a safeguard always present, alert, and apprehensive; a safeguard upon which the commerce of the world has depended from the start, and upon which it must depend to the end.

One object sought in pooling is the reduction of expenses. This is in the interest of the shipper, because it places the carrier so much nearer the goal of a maximum return on his capital. It also prevents rate wars. These latter are an incident of railway practice. While in many respects deplorable, they have not been wholly bad. They have had the effect to stimulate carriers, to sweep away obstructions, to eliminate the wrecking enterprises, that have from time to time sprung into being for blackmailing purposes, or as a means of making money out of the sale of securities or construction contracts. Generally, however, they are harmful. Railway strife here, as elsewhere, requires to be tempered and its action minimized by conservative influences. Hence the device of pooling.

practice of discrimination is resisted. The railway pool, as a remedy for discrimination, is a leap, from the frying pan of inequitable and partial exactions by the railway power, to the triple-heated furnace of absolute and arbitrary rule."—J. F. Hudson, "The Railways and the Republic," page 232.

Mr. Hudson is always picturesque, albeit somewhat trying. He writes by far too much for the galleries.

methods, needs, instincts, and selfishness prevent it. He is too solicitous of personal gain, too wary, too unstable, to be controlled, except in a limited way.

The purpose of a pool is not to make rates high, but to maintain reasonable rates; to preserve the revenues of the carrier that he needs in improving and operating his property.

The apprehension that pooling prevents competition would be true, if competition were merely local. But it is not. It is animated by the action of railroads in every part of the world, by water routes, by other means of carriage; by the energy, versatility and covetousness of men; by the abundance of capital; by the law of supply and demand.

Pools place the competition of railroads on a rational basis—on the basis of common interest, as between the carrier and his patrons. They eliminate the element of chance, of hasty and inconsiderate action, of indeterminate causes. Beneficial competition will still remain, because founded on conditions that are constant and unchanging, on natural laws that are not determined by particular persons or groups of men, but by the concurrent action of the whole world.

In every country save the United States, pooling is recognized as an essential element, a necessary concomitant of railways. It, or some effective substitute, will again be so recognized here, or, failing in this, we shall sooner or later see a practical consolidation of all our railroads. Pooling does not necessarily invite governmental supervision. But

another, of one market over another. What he does is in the interest of the community, because its comforts and necessities are augmented thereby. "The general public welfare demands the maintenance of this salutary principle of railroad transportation" (i. e., charging less relatively for a longer than a shorter haul). "Upon it is based the immense internal commerce of the country, whereby exchanges of products are effected between the most distant portions of the Union, and all sections bound together by the strongest ties of mutual interest. By it the fields of production are enormously expanded; the values of lands remote from markets are enhanced; the price of every necessity of life is reduced; the surplus products of the interior, amounting to hundreds of millions in value, are thus brought to the seaboard. In the United States, the application of this principle has produced great hardships, especially to the agricultural interests of the Atlantic States."* But these hardships were unavoidable. It would not have helped the eastern farmer, located on a line of railway compelled to abandon its competitive traffic, because of an enactment preventing its charging less for a longer than a shorter haul. Such prohibition would diminish the revenues of the road, but "would not enhance the price of his products in the markets of the world, for they are governed by the cost of transportation over the cheapest routes by which the demand can be supplied. It is cheap trans-

* W. D. Dabney, "The Public Regulation of Railways," pages 104, 105.

low rates, the railroads, to the extent that any net revenue is derived from it, are enabled to reduce the rates on local traffic;" * i. e., they will be able to reduce rates when the return on a property equals the maximum interest allowed on such investments.

Under the beneficent law of exchanges, communities far removed from each other receive the reciprocal benefits that flow from active competition, when, under other circumstances, they would be subject to local monopoly. Thus, the farmers in the north and south of England are enabled to buy their plows and wagons at a much lower price than they would if manufacturers located at these extremes were not able to offer their products in competition with each other; if they were not allowed, by low rates, to ship their goods from one end of the country to the other. The value of the principle is not restricted to particular articles of commerce. A community derives benefit and profit from its application in proportion to the need that exists for an article. Its exercise is dependent upon the discriminatory rates of carriers.

It has been suggested that long and short haul rates should be exercised only under the supervision of the government; that it should be the duty of the latter, among other things, to see that no traffic is handled by railroads improperly, or that does not pay a profit to the carrier. The precaution is an unnecessary one. Self-interest will prevent carriers making an unremunerative rate. They may do so

* W. D. Dabney, "The Public Regulation of Railways," pages 114, 125.

where there was an understanding between the agent of the carrier and the shipper, where the agent derived some personal advantage therefrom. But such cases have neither been frequent nor general, and are unworthy of notice in comparison with the good that has grown out of the unrestricted use of special rates. To condemn them because of such practices, is very much like condemning the banking system of a country because a cashier, or half a dozen cashiers, are rascals.

The economic principle that underlies the making of a rate finds more apt expression in the special rate than in any other. It more nearly accords with business practices than any other; more nearly represents the measure of value between what a thing is worth at the point of shipment and the price it will bring at the place of consumption. In the practical conduct of traffic such rates are made, in particular cases, when business can not afford to pay regular rates. They are made after the most searching inquiry as to what the traffic will bear. Their purpose is to stimulate production; to facilitate exchanges. "The principle which governs a railway company in fixing the rate is that of creating a traffic by charging such sum for conveyance as will induce the product of one district to compete with that of another in a common market."* If left unobstructed in the operations of their property, special rates will be made by carriers whenever necessary to encourage trade or foster new enterprises. In some instances, they will be made at a

*Royal Commission on Railways' Report, page xlvil.

that they are unnecessary and unjust. They are both necessary and just; both equitable and fair. They represent a need and its gratification. While special in their issuance, their purpose is the general good. They represent an integral part of business.

Rates that can not be adjusted to meet the exigencies of the hour are apt to be a drag on the commerce of a country, are mischievous, are likely to cripple the interests they should serve. Special rates are discriminatory; are a recognition of the immutable law of trade, of its fluctuations and inequalities; a relinquishment of a part to avoid losing the whole. They represent in transportation the practice of commercial life that accords something to every one who handles a product.

The purpose sought in giving a special rate is selfish. But its value to the community is none the less material on that account. The industrial interests that crowd the lines of our railroads owe their inception and growth to the special rates that have been granted them. Without the use of such rates, the undeveloped portions of the country would, in the main, remain as destitute of manufactories as the bridle paths of Afghanistan. It is possible—probable—that special rates are sometimes granted unwisely, are used improperly; but this is only saying that man is fallible. They are none the less necessary, none the less valuable because of it. They are the delicate fluid that anoints and lubricates the joints of the transportation body. Without them the wheels of commerce would cease to turn; we should revert to the period when the stage coach and

engendered may be overcome elsewhere. If made general, such recuperation would be impossible.

Business takes on the peculiarities of those who handle it. In our progressive country, the special, or discriminatory, rate of to-day becomes the standard of to-morrow. The tendency of rates is downward.* Against this all the resistance of corporate forces is directed to counteract contrary efforts on the part of the public. To the extent that reduction is practicable or necessary, it is unavoidable. But to precipitate it heedlessly is to disturb the commercial interests of a country and retard its growth.

It is assumed by those who inveigh against carriers fixing rates, that the power is used improperly. Ignorance, here as elsewhere, is critical, suspicious, credulous, intolerant, unjust. Undoubtedly acts of injustice have been perpetrated; foolish things have been done; unwise measures enforced. But this was to be expected. Are we to condemn a just and necessary thing, because it is sometimes attended with wrong? We often have rain when we do not want it, and our crops are scorched by the sun. But do we inveigh against rain and sun because of this? No. They are the accompaniments of generally beneficent laws. And so it is in regard to the discretion of railroad managers to make rates, special and otherwise. Misuse in isolated instances does not prove that its exercise is not generally beneficial. It is. It everywhere quickens the seed of com-

*It is based on increase of business, increased skill, and heightened facilities, etc., etc.

conservatism, unnatural to trade, governs railway operations.

What is abnormal in progressive railway enterprise to-day becomes normal to-morrow, if its effect is generally beneficial. Men, if left unimpeded, strive to attain that which is most generally desired. Railway owners and managers are no exception to this rule. The public demands a low rate and an efficient service. This is the goal carriers have before them. They will attain it if not handicapped; they will not attain it if they are. Personal responsibility animates them as it does other men; rob them of responsibility, and you destroy their ambition and interest, lose the fruits of their creative talent.

In the operation of railways, the tendency of rival companies is to share in common the duties and expenses of traffic agencies located off the line, to reduce the number of such agencies, to prevent undue strife for business because of over-zeal and the suspicions engendered by shippers and others, to economize. The spirit is worthy of recognition and encouragement.

It is important that carriers should receive, generally, a fair rate for their services. Every depression is more or less permanent, so that if, through strife or outside interference, abnormal action is taken, it becomes to a certain extent normal. If not regulated, therefore, it is only a question of time when properties thus affected will cease to be remunerative; when they will be bankrupted; when they will become a burden to the community. For

these and other reasons they should be encouraged to form such combinations as may be necessary to mitigate strife. One of these means is the practice of pooling—the right of carriers to enter into traffic agreements with each other. The exercise of the right menaces no one. It is accorded every other trader in the world. Business would not be done if it were denied. It should not be withheld from railroads. Wherever it is practical, consolidation will follow, if the restriction cannot be evaded otherwise. To prevent railroads from entering into an arrangement with each other to mitigate strife, is to force them to amalgamate. It is the only resource left them—their only escape from ruin. If, therefore, governments do not wish to have their railways consolidated, if there is any benefit in separate organizations, as there is, this concession must not be denied.

What the effect of the general consolidation of railroad interests would be, no one can tell. It is not probable that the interests of the people would be menaced thereby, if not carried to the point of monopolizing sources of supply; if not world-wide. So long as this is not done, competitive markets will influence the price of products and the rates of carriers. But not to the extent that they do at present. Should the railroads of a country be consolidated, it should be attended with carefully systematized methods of administration, impersonal in their nature and not dependent upon men or parties. Organization should, in fact, in such cases be conducted practically upon the same lines as that of

a constitutional government. Otherwise there is danger of its lacking efficiency or becoming otherwise objectionable.

The processes of competition are so obscure and subtle as to elude effort to describe them in detail. Every case possesses features peculiar to itself that must be especially considered. No rule applies with the same force or to the same extent in any two cases. Adjustment attends every case to the extent necessary to secure the desired end. It is this feature that makes the arbitrary efforts of governments to regulate rates fatal to the material interests of a community. Its futility is especially apparent in the attempt to classify railroads, limiting each to a rate corresponding to its assumed necessities or the amount of its business. Nothing could be more fallacious. Competitive rates must be the same for neighboring properties, no matter what their necessities. To reduce a rate arbitrarily, on a well-established line, involves a corresponding or even greater reduction on the lines of its less fortunate neighbors. In fixing the rate for one line, we fix it for all competing lines.

Under competitive practices, rates are not based on the requirements of particular properties. This is why pooling the business common to two or more lines does not result in harm to the community. Without this device, the value of such traffic is greatly lessened to the carrier, while the resultant warfare greatly injures the shipper. The value of competitive traffic is, in many instances, wholly destroyed by the warfare it engenders. This war-

forecast the future. "Rate wars are as unsettling to the business of the country as they are mischievous to the carriers."* An unfortunate feature of rate-cutting is the disposition of governments to make such rates nominal, to base tariffs thereon, to act arbitrarily in the matter. "No carrier has any ground for just complaint if its published rates are reduced by the authorities to the standard of the average it accepts."† I am loth to believe that this will be the guiding principle of our great commission; that exceptions are to be made the rule; that the mistakes of carriers are to be made the standard of their government; that the good that grows out of their rivalry is not to mitigate against their indiscretions.

The instincts of carriers are those of traders; such as the strife of men engenders. They should not be punished or judged too severely. Business men can not be gauged by the standard of interest clerks, but by the spirit of enterprise and progressiveness inherent in men who achieve great ends. "During the summer last past, the commission had occasion to make inquiries into the proper charge to be made by the carriers of the northwest for the transportation of food products in that section of the country, and in doing so it endeavored, amongst other things, to ascertain what the carriers were actually receiving; that is to say, not merely what the rate sheets showed, but what they collected from shippers.

* "Fourth Annual Report Interstate Commerce Commission," page 21.

† *Ibid*, page 81.

effect—it will leave that power distributed among a great many.”*

Pooling, while it does not prevent competition, modifies its personalities; renders consolidation unnecessary by removing the incentive; makes the strife between carriers less intense, without destroying the rivalry that is so advantageous to a country.

The practices that attend pooling are such as circumstances require. They are mere matters of detail, of no particular interest to any one except the carriers themselves. In some instances a division of the business is made on the basis of gross receipts; in others on the basis of the tonnage. Sometimes particular roads are allowed to charge less than others, because of the disadvantages of route, lack of facilities, etc. Such rates are called differential rates. Their use “presents one of the anomalies of railroad practice, which is that the poorest and weakest roads—those least able to furnish cheap transportation—do, in fact, carry the competitive traffic at the lowest charges, and to a certain extent determine the charges which their stronger rivals shall impose.”† No more striking instance of the difference between theory and practice can be found than this, in commercial experience. “It is not uncommon to find that a road is able to compete for an important business, but is at a disadvantage in the competition by reason of greater length of line, or heavier grades, or of other

* Argument of Albert Fink before Committee of Commerce on the Reagan bill, January, 1880, pages 22, 23.

† W. D. Dabney, “The Public Regulation of Railways,” page 148.

exists between railroads; each company endeavoring to secure the largest amount of business, to increase its tonnage by taking the business from some other road."* The business interests of a country require that this difficulty, this hindrance to its healthy progress, should be eliminated. This can only be accomplished in one way, that is by combination, by harmonious action, by mutual agreement, by what has been found so efficacious in other countries—legalized pooling. Public interest and policy require that this should be done in the United States, not at some indefinite period in the future, but at the earliest practicable moment.

* Albert Fink, argument before Committee of Commerce, February, 1882.

CHAPTER VIII.

**RAILWAY RATES AND GOVERNMENT CONTROL—RATES
MAY BE TOO LOW, THEY CAN NOT BE TOO HIGH—
RAILWAY ENTERPRISE — UNNECESSARY RAIL-
ROADS: EFFECT THEREOF — PROPER SCOPE OF
GOVERNMENTAL SUPERVISION.**

The sudden and vast growth of our railway system has had the effect to bewilder the public mind, to prevent its problems being rightly understood. The subject, in all its details, is too vast to be comprehended readily. Time is required for the acquisition of this knowledge and the assimilation of the new industry with surrounding enterprises. The liberal commercial spirit that animates railways has not been understood, and, because of this, public sympathy has been denied them.

The baneful effect that attends warfare on private interests is generally recognized, but because of the magnitude of railway enterprise and its impersonal character, it has been thought to be an exception, rendering it not only practicable but politic to deny its owners the right to manage their property in their own way, but to hold up their acts to public reprobation. The sooner this impression is dissipated, the better it will be for the country. The sooner the people learn that to deprive carriers of any portion of their just earnings, to injure their

Free railway construction stimulates the ambition of railroad owners and managers to the utmost. It leads them to build and operate economically; to construct according to the work to be done, and to eagerly adopt every device that will improve the service, or lessen its cost.

Some of the mistakes that we have made in regard to railroads are quite apparent to us now. We know that, where free railway construction is permitted, monopoly is impossible. I think it may also be assumed, that while railroads are thought to disregard the interests of the community, they are exceptionally sensitive to their obligations in this direction; that while legislatures claim the right to fix rates, the anomalous conditions under which the railway system has grown up and its chaotic nature render the exercise of such power fraught with the greatest danger to the community; that while it is assumed by many that rates may be fixed arbitrarily, they are, on the contrary, the result of natural causes.

The vast territory of the United States renders railroads especially valuable in its development. Without them centuries would have been required to accomplish what they have made possible in a decade. They have everywhere vitalized business, opened new and productive sources of supply, built up industries that would not have been possible under other conditions. They have brought the centers of commerce, separated by vast distances, into active and continuous competition, and, under their benign influence, districts remote from water-

courses enjoy the same facilities, and in many cases the same prices, that the most favored possess. They have made the impossibilities of yesterday the possibilities of to-day. Upon their beaten tracks the poorest citizen travels in greater splendor than the monarch of olden times. Distance is no longer an element. The traveler that leaves us at dusk to-day, after the lapse of twenty-four hours, we discover pursuing his journey a thousand miles away, carefully watched over, warmly housed, comfortably fed, serene, and happy. Such is the railway system. It affects more nearly and vitally the prosperity and comfort of a community than any other interest, than indeed the government itself. Superseding other forms of inland conveyance, it determines the location of business centers and vitalizes by its presence or blasts by its absence. Upon the care and skill exercised in maintaining and operating it depend the safety and comfort of those who travel. If extravagantly or unwisely managed, the waste is lost to the community. If injudicious economy is exercised, the same community suffers through the disasters that follow or the lack of necessary and proper facilities. In order to compass the results expected of them, the income of these gigantic highways should be sufficient to afford the peculiar labor and abundant supplies required in their operation and maintenance. This income should also be sufficient to meet the interest on the capital expended in construction. If deficient in either respect, the community suffers, not only in the common conveniences of transportation, but in

the depressing influence that capital sunken in unproductive enterprises entails upon surrounding industries.

In order to obtain the highest possible results, both from the standpoint of the community and the carrier, railways should be wisely located.

Only such lines should be built as afford reasonable proof of profitable employment.

It is an industrial axiom that a man who causes two blades of grass to grow where but one grew before is a public benefactor. It should be equally an axiom in our day that the construction of two railways where one suffices is a public misfortune. It does not matter that the inherent vigor of a country, abundance of cheap land, a favorable climate, and attractive political institutions may enable it to push forward in spite of these conditions; they are none the less unfortunate. Such a country may excite our admiration, but while admiring we can not forget how much its commercial greatness might have been enhanced under a more beneficent state of affairs.

There can be no escape from the general proposition that, if the business falling to the lot of a particular railroad is only sufficient to pay its legitimate expenses and interest, the construction and operation of an additional line under such circumstances adds to the financial burden of a country. If rates could be advanced, at will, this burden might be distributed. But they can not. The effect, moreover, is to restrict the general usefulness of carriers, for the reason that no rate can be made that does

not exist elsewhere. Abroad no railway can be built until the location has been approved by the government, and this approval is only given after hearing all the parties in interest. In England the projectors must first define with minute precision the location and character of the proposed line, the necessities that exist for it, and the encouragement that it has received. Afterwards the objections of rival lines, communities, and individuals are listened to and considered. The result of these minute inquiries is to determine beforehand whether the property is likely to be profitable or not, or whether there exists a necessity for it. The rights of individual property owners are thus protected from unwarranted seizure, a reasonable and wise precaution is taken to prevent capital from being sunk in worthless enterprises, and existing lines are protected in the business that belongs to them and that is necessary to their wants. That the exercise of this precaution is generally wise and beneficial, no reasonable person can doubt. For a time, no injury resulted from the lack of proper supervision and restriction in the United States. The first lines constructed were wisely located to meet actual and prospective needs, and a reference to them upon our maps shows that their projectors anticipated every want of the country they traversed. In studying the location of these great enterprises, one can but be impressed with the far-seeing sagacity and wisdom displayed. If the territory thus occupied had been protected from invasion by rival companies, its traffic to-day would

railroads; their cheapness, the low rates they afford, are undoubtedly due to active competition; to the fact that they have been allowed free exercise in every direction. The moment this condition of affairs is changed, either by government interference or otherwise, our progress will be less rapid, our facilities less ample, our charges less favorable. Responsibility will be lost. What was before freely accorded will be evaded or lessened.

A reason of the special misfortunes that attend excessive railroad building is the permanent character of these properties. But while it is undoubtedly true that railroads can not be moved or capital withdrawn from them when once invested, still, if we leave the owners free to adjust their affairs to conform to actual conditions, they will do so with the least possible injury to the community and themselves. The profit may be little or nothing for awhile, but a modicum may be realized over the cost of operating. But this will be dependent upon natural adjustment.

The cause of the great prosperity of the United States has been attributed to free railway construction.* This is not wholly true. The glamor of our institutions, the extent and boundless fertility of our soil, our mineral resources, and the sturdy and enterprising character of our people, have also had much to do with this prosperity. But all these

*"Many reasons . . . have been given as the cause of the prosperity of the United States, but the real cause has been the law allowing free railroad construction."—E. Bates Dorsey, Member Am. Soc. C. E., in *Railway Review*.

railroads of the United States were one homogenous system, under the control of one management, owned by one man, they would still not be a monopoly. As a matter of fact, they are divided under many managements and owned by many men. Every line has practically been paralleled. The strife for business is incessant.*

Not only have we encouraged the construction of railways in advance of their need in new and undeveloped regions, but wherever a line existed, and through careful management and the growth of the country had built up a productive business, other companies were not only permitted, but encouraged, to enter the territory thus occupied and strive for a share of the traffic. Companies operating under these conditions, and subject to invasions of this character, are the farthest possible remove from monopolies. The only monopoly they possess is their name, and this is practically filched from them, in many instances, by the ingenious devices of younger and rival companies.

An apple-stand is a monopoly up to the point where it begins to pay. To this extent our railways may be said to be monopolies. Up to the point where the business of a road becomes remunerative, or is fairly established, the great cost of undertakings of this character affords incidental protection. The right, however, up to this period is valueless. But at the point where business becomes fairly remunerative and might be of value to the com-

* There is, practically, not a station in the United States that is not affected by the business of some other station on a rival line.

circumstances of its construction and operation involve too many intricate and abstruse questions, to render its government possible except in minutest detail and with special reference to its requirements in particular cases. Having been constructed with a view to its operation in detail, it can not respond, except disastrously, to any general or fixed law that disregards these conditions.

Free railroad construction brings in its train, as has been shown, advantages unknown to monopolies. The strife engendered by rival enterprises deepens and broadens the intelligence and patriotic instincts of owners and operators. This last is apparent in the marked disposition of the railroads of the United States to adapt themselves to the slightest wish of the community. It is discoverable in the introduction by them of new appliances, and in the betterment of those already in use; in the introduction of means for comfortable and even luxurious travel; in the construction of ornate buildings, of palatial cars, of picturesque roadbeds, multiplied trains, and ingenious devices to avoid irritating or discommoding the public.

Rivalry between railway corporations engenders better service and heightened intelligence. But competition between them for a common traffic, based on undue reduction of rates and multiplied expenses, is injurious. Competition that arises between communities and countries, based on their respective wants, benefits mankind; that between railroads for a common trade does not, except within carefully prescribed limits. The former

It is a wise maxim in law that a man can not take advantage of his own mistakes. The rule applies with equal force to communities. It finds application in the railway problem. Having encouraged indiscriminate railway construction, to weaken or destroy the property afterward by restrictive legislation is unjust, and can not but result disastrously to a country that permits it. The construction of unnecessary lines was encouraged in the United States because of the real or supposed benefit the community derived therefrom at the time, without reference to the effect on those who furnished the capital. The community is, therefore, estopped from attempting to evade its share of responsibility. It is also prevented from exercising a restrictive influence over such properties, inconsistent with the conditions under which they grew up. Having encouraged and fostered a system based on the hypothesis that under it rates should be left to the competitive forces of trade, it can not afterward come forward and presume to treat them as monopolies.

The immediate advantages a community derives from the construction of a railway are numerous. It is benefited by the enhancement of local values, the introduction of new capital, and frequently by reductions of rates. But the loss it suffers from the construction of unnecessary roads, like the losses that follow over-production in other directions, are so complicated that they are not traced to their real source. But in the exact proportion that railways are built in advance of their wants, in that proportion will the community be injured ; depression will

adjust themselves to normal conditions, and, thereafter, are governed by its laws.

Over-production in railroads engenders over-production in other directions. It superinduces speculation—the frittering away of needed reserves. Wherever free construction is permitted, bounties should be prohibited. Those who build railways should be compelled to pay for the property they use. Thus capital will not be lured into unprofitable and unnecessary ventures.

It is hardly probable that the free construction of railways will ever be forbidden in the United States. We may, therefore, expect to see sudden and wide fluctuations of prices, wherever the law of supply and demand is transgressed—seasons of great prosperity and wild speculation, followed by periods of depression. While undue duplication of railways can not but be attended with more or less hardship, nevertheless I think that if freedom to construct is attended with freedom to operate, with freedom to the owner to adapt himself to his environment, the danger will not be great. The building of unnecessary roads is not nearly so injurious, not fraught with nearly so much danger, as taking the responsibility and control of railroads out of the hands of their owners and vesting it in the government. Not that I question the value of government supervision, if wisely exercised. But it should be merely supervisory; should not enter into the practical details of business, such as the making of rates, the running of trains, and kindred matters. Under these restrictions it tends to allay public irritation and suspicion, and is, consequently, a valuable auxiliary.

They overwhelm all in common ruin. Such agitation is characterized as communism in France; in America it is called the protection of the masses against the exactions of grasping monopolies. It is based on the theory that parts of a community may have interests permanently distinct from other parts, or from the country as a whole. That the provident may, by legislative enactment, be made to labor for the benefit of the improvident.

Wherever hardship is entailed by over-production, whether of railroads or wheat, we see it reflected, according to the intelligence and character of a people, in their newspapers and public assemblies. In Paris it manifests itself in a cry for the overthrow of the government; in the United States for railway regulation; for a reduction of rates. The latter offers, apparently, an easy opportunity to escape some portion of the shrinkage in prices, be it of coal or grain. It has, moreover, the merit of not offending any large portion of the community. It is not a matter, seemingly, in which the latter is interested, except in a vague way. However, reduction in the rates of railroads, beyond the point necessary to enable them to meet their obligations and render a return on the original investment, injures them, and through them the community. It is from this standpoint that the country must consider the question.

The magnitude and peculiar nature of railway property, and the necessity of its being operated at all times and under all conditions of business, render it impossible, as I have pointed out elsewhere,

to effect any great or sudden saving in expenses. Such savings are possible through diminution of force, and the introduction of improved appliances and better organization. But this requires time. It is impossible that any instantaneous or effective measure should be carried out upon the spur of the moment to meet reductions in rates. Hence the hardship that attends such measures. Business depression or shrinkage in values, no matter how slight, reflects itself in the affairs of carriers. If trade is depressed, it affects their traffic. They could not, if they would, avoid the calamities that overtake those about them. It manifests itself in lessened number of passengers and in the falling off of tonnage, in loss of revenue. Frequently the depression of the carrier precedes that of the community; in some cases it is co-existent; sometimes it follows, but it exists in every instance in exact proportion to that of the community, and by no adroitness or subterfuge can it be evaded. It makes but little difference to the carrier, in operating and maintaining his property, whether times are prosperous or otherwise; his road-bed and equipment, with all their appliances, must be kept up to the maximum standard; taxes must be paid; men familiar with the geography of the road and the details of its traffic, and acquainted with the minutiae of its business and schooled in the operation of its trains, station and yard work, must be employed whether rates are high or low, whether business is productive or unproductive. It does not require a man experienced in railway affairs to understand these truths. They are self-evident. If

The advisability of governmental supervision is generally recognized. It is indispensable to a correct understanding between the railroads and the people. It is valuable in cases of dispute, and facilitates a better understanding of the railway problem upon the part of the people; as a means of disseminating trustworthy information; as a means of correcting popular mistakes in regard to such properties. In this field its value can not be overestimated. The public believes the statements of its agents; it looks with suspicion upon those made by the owners and managers of railroads. Public supervision affords, therefore, an invaluable means of intercommunication. The railways desire only that the truth shall be told of them. They have nothing to conceal.

An impartial and responsible commission of government officers is thus valuable to the railroad companies, as well as to the public. But it is essential that it should be impartial, and that its duties and responsibilities should be confined within practical limits. It should not be a creative body. While possessing the right to inquire into all matters of public concern, its inquiries should be conducted in a spirit of fairness and with reference to the interests of the people as a whole, and not of a class or section. The relations between carriers and the people are always strained. Differences continually arise between them, and acts upon the part of carriers, that arise from natural and unavoidable causes, are often ascribed to sinister purposes. The public are both curious and uneasy. Their dispo-

sition to criticise does not arise from malevolence, but from want of proper understanding of the subject—from jealousy and fear, born of misapprehension. This is not strange. The magnitude and power of a railroad are so great that the individual voice seems powerless to make itself heard. Such is the public belief, however mistaken. An impartial tribunal has it in its power to correct all this. It is, therefore, at once a social and commercial necessity.

The imaginary evils of mankind are quite as hard to bear as those that really exist. The great bulk of the grievances of the public against railways are wholly imaginary, but none the less real on that account. For that reason, it is of the greatest importance that they should be cleared away; that the disposition of the people to attach real effects to imaginary causes, to distort petty grievances into great public calamities, to separate the interests of one class from another, to foster agrarian laws, should cease. This may all be brought about by officials of the government acting without prejudice.

The prime duty of the government, in regard to railroads, is to see that the laws are not violated, to inquire into complaints regarding excessive rates, unjust discrimination, lack of adequate facilities—to be a conservator, in fact, in the general interest; not having power to create conditions, but to ameliorate by investigation and suggestion; not having the power to relieve the owners and operatives of railways of responsibility to the public for the safety and convenience of travel and the necessities

prosperity would have been a source of saving to the community. But with two roads reduction is impossible. The people do not stop to trace the cause. They have a vague feeling that rates ought to be reduced. Their desire finds expression in the acts of legislatures, in the voice of newspapers, in public agitation, in private petition, and general discontent. What is the remedy? Manifestly the prohibition of duplicate roads. When, therefore, proposal is made hereafter to parallel an existing line or build into its territory, let the government say, through its commissioners, "This line is unnecessary; competition is assured; the present company is abundantly able to afford the accommodation needed; the new line will, moreover, retard reductions in rates; will prevent the existing line from affording the abundant and cheap service that it ultimately may if allowed the whole business."

The agents of governments may also be made conservators in another direction. They may prevent the construction of lines in advance of their need. When it is proposed to build a railroad that manifestly will not pay, that is not needed, that is in advance of its time, let the government say: "Stop! There is no demand for this road; it is purely speculative; its construction will have the effect to draw capital from active employment to be locked up in unproductive enterprise; when there is need for a line let it be built; let supply go hand in hand with demand." *

* The exercise of this power will prove especially valuable in the case of railroads built large'y by public and private aid. Such properties are always more or less artificial.

too frequently reiterated. The railway companies of the United States have, in every stage of their existence, shown a disposition to meet every legitimate responsibility. They have been superior to the harsh judgment that has been passed upon them. We can not trace their experiences except with wonderment; great newspapers have assailed them with unbridled fury; politicians have sought to undermine them with the people; juries have denied them justice; legislatures have openly impugned their motives and questioned their methods; the public has refused to give them its confidence or sympathy; every species of folly, every device of malice, the impossible requirements of ignorance, the selfish cunning of personal interest, the ravings of demagogues, the disappointments, jealousies, prejudices, and hatreds of mankind have each, in turn and in unison, assailed them. Denied every virtue, no accusation has been too monstrous to find believers.

resources of railways—a law that will prevent internecine wars. But in devising this relief, the responsibility of those who own railroads must not be destroyed. It may be regulated. They alone are equal to the emergency of management; they alone understand the constantly changing requirements of commerce; they alone have the means to meet them. The situation requires legislation that will afford railroads protection and encouragement without crippling them, or through them, the country.*

* This chapter was written in 1886. I merely revise it. While there has been much legislation since that time, I do not see wherein I can change what I then wrote. It was true then. It is true now. Railroad wants are still the same. The mistake that the public and public servants make, is in treating exceptions in railway practice as conditions; in mistaking surface indications for fundamental principles; in treating local distempers as constitutional maladies; in applying the surgeon's knife when a mild poultice is all that is required; in acting hastily, and oftentimes not upon experience or wise counsel. The railway situation requires the strengthening of the hands of owners.

Per contra, what I wrote in regard to railway rates, I find, upon further study and reflection, to be lacking in adequate comprehension of the subject. So greatly have I been impressed with this fact, that everything I have published on the subject heretofore I have, so far as possible, withdrawn and destroyed. I ascribed undue importance to the cost of a property; also to the discretion of carriers. The cost of a property practically cuts no figure in fixing the rate, while the discretion of the carrier is so limited—applies to only so small a part of the traffic he handles—that when we consider the business as a whole, we find he has, practically, no discretion whatever. It is like that of a merchant, who may put up the price a little on an odd article, but on the great bulk of his goods—on everything of consequence to the community—the price is determined for him by influences that he has no control over whatever.—M. M. K.

CHAPTER X.

VALUE OF PRIVATE OWNERSHIP AND INTEREST— GOVERNMENT CONTROL: ITS INADEQUACY.

When anything goes wrong in the world, or seems to go wrong, the ignorant and thoughtless everywhere, rise up and call upon the government to interfere, as if a perfunctory body, made up of agents, loosely selected at best, were more trustworthy than the masses, from which it derives life. Government interference is the *sine qua non* of young people, the hopeful, confiding, and simple. It is the panacea of cranks and schemers. It is never fully adequate. It lacks in intelligent interest, energy, and adaptability. It, moreover, has the effect to weaken personal interest and individual effort. Its substitution for private effort is to trade off the practical experience and enthusiasm of a nation for the service of hired men. But in questioning the ability of governments to carry on affairs effectively and economically, the basis of objection should not be misunderstood. It is not that the subordinate officials of a government, those who really do its work, are not able and trustworthy, but that they lack the peculiar kind of executive and administrative talent that is needed.

The carrying on of government is a business in which the government employe performs duties

CHAPTER XI.

GOVERNMENT SUPERVISION AND CONTROL: ITS LIMITATIONS — THE VALUE OF PRIVATE OWNERSHIP — FURTHER REFERENCE TO RATES: PRINCIPLES UNDERLYING THEM.

Nations commercially great delegate to their governments only such functions of a business nature as individual citizens can not be induced to take up. It has been the same in every age. Witness the practices of Great Britain in our time.* This, the greatest nation that ever existed, not only accords individuals the preference in every case, but carefully abstains from any interference with them likely to dampen their ardor or restrict their achievements. Its policy, moreover, is applied fairly and unreservedly to all; to railroads as well as to producers of corn and iron. It respects the property rights of the rich, as well as the rights of the poor.

In some respects, the people of the United States fall far short of England.

We are much given to loose talk about those who are rich; about those who own railroads, banks, and other great interests. It is a species of hysteria.

* "The people of England, proud of their commercial ability and jealous of their commercial liberties, spurn the idea of governmental ownership or management of the railroads."—Joseph Nimmo, Jr.

they do they must conform to some law or precedent. It is thus the people protect themselves against those who govern them. There is no other way. The result is, the government servant is disqualified from filling any office requiring the exercise of discretion—any office requiring its incumbent to adapt himself from day to day to constantly changing needs.

The servant of a government is like a blind man, when not governed by law or precedent. He requires these to substantiate his good name, to shield him from attack. In every situation and experience, consequently, he hedges himself about with rules and regulations. The more minute and exhaustive they are, the better. He can not, if he will, vary them to meet practical needs or the interests of individual citizens. He is autocratic. In guarding the interests of the people, he looks jealously after his own prerogatives and interests. The power he exercises and the general limitations of his office, all combine to make him a prosecutor, instead of a conservator, of those so unfortunate as to have relations of a business nature with him. The fault is not his, but that of the system of which he is a part.

In considering the subject, three reasons may be assigned for State ownership of railroads: (1) Avoidance of abuses incident to private management. (2) Lack of private enterprise. (3) Increase of political influence of the government.*

Government ownership in the United States and England is advocated for the first-named reason.

* A. T. Hadley, "Railroad Transportation," page 238.

Rates based on relative cost retard traffic, except within exceedingly circumscribed limits. This theory falls to the ground with actual practice. "There was never a more mistaken idea than the idea that rates would be reduced if they were based upon cost of service. The principle keeps rates up. If it is strictly applied, it makes it necessary that each item of business should pay its share of the fixed charges. A great deal of business which would pay much less than its share of the fixed charges (though still giving a slight profit above train and station expenses), is thus lost. This is bad for the railroads, bad for the shipper, and bad for the prospect of low average rates. It makes the business of the roads so much smaller that the share of fixed charges which each piece of business has to pay (under this system), becomes higher, while the profit does not increase, and the inducement to new construction is lessened. These things are not mere theory, but are matters of history. The great reductions of rates, whether in the United States, Belgium, or elsewhere, have taken place under the stimulus of competition, even if it was only temporary. They have been made at the very periods when the principle of basing rates upon cost of service was most systematically violated. It is the countries which have passed through such periods that enjoy the lowest rates." *

A tariff based on cost is practically impossible. Wherever sought to be introduced, its use is attended

* A. T. Hadley, "Railroad Transportation," page 250.

with countless exceptions, special rates, concessions, avoidances, sliding scales, and other makeshifts designed to harmonize it with actual needs; to make it fit the wants of commerce, rather than the theories of empires and politicians. Austria, like Germany, attempted to base rates on cost, but unsuccessfully. The effort, however, was fertile with suggestion. Thus, it sought to make middle distance traffic pay relatively more profit than the long or short distance. Rates finally were based on what the traffic would bear, but the government sought to make it appear as if they were based on cost of service.* Governmental-like, after deluding the people into the belief that cost formed the proper basis, it avoided it in actual practice, without acknowledging the deception.

The belief that every rate should bear its share of cost and interest is theoretically perfect. Technically it is right. Practically it is absurd. The necessities of trade can not be made to conform to any such cut-and-dried rule, to any such political delusion or prejudice. It must be handled for the profit there is in it. Traders understand this, and act accordingly. No one else does or can.

Happy the country whose commercial and industrial affairs are left to the control of traders; to those who alone are imbued with the instinct of trade, or possess the adaptive talent to conform to its needs.

In some respects the business methods of Europe are more straightforward and practical than ours. If Europeans do not possess greater commercial

* A. T. Hadley, "Railroad Transportation," page 247.

companies. The actual results are just the reverse. The State is more apt to tax industry than to foster it; and when it attempts to tax industry, it is even less responsible than a private company. State management is more costly than private management. Much capital is thus wasted. State management is demoralizing, both to legitimate business and politics.”*

The Italian government did not speak or act hastily. Its experiences had been varied and exhaustive. “Italy has had more experience of different methods of railway management than any other country on the face of the globe. It has tried State ownership and private ownership; it has tried allotting a district to a company, as in France; and it has held an investigation into the whole subject unparalleled, both in extent and minuteness. It has laid under contribution the railway experience gathered in the course of fifty years by every nation in the world.”† Its action, therefore, was conclusive, so far as the commercial needs and experiences of Italy were concerned. That these were not noticeably different from those of other countries, we know from the analogies of trade.

Government management of railways is practiced more or less in many countries. Not because the people thought it the best way, but because government aid was necessary in the first instance to build the roads.

* W. M. Acworth, M. A., “The Railways and the Traders,” page 164.

† *Ibid.*

The Belgian system of government railroads has been esteemed from the first the highest pattern of this form of management. Its initiative was admirable. It thundered loudly in the index, but has not kept up with expectation. Its "early arrangements were admirable for the time in which they were devised. But they were not changed to keep pace with progress elsewhere. The Belgian system of reports and statistics, when first adopted, was the best in the world; a generation later it was the worst. In their engineering arrangements, machine shops, etc., what was at first admirable precision soon became intolerable old fogeyism." * However, characterizations of this nature do not apply to the Belgian system alone. They apply to government management everywhere. Government officials are the same in their dispositions and methods in every country. They cling to that which they know. Their changes are mainly mechanical, clerical; the adoption of new checks and safeguards; of new designs, to keep the people in order and at a respectful distance.

All government service is generically alike in its disposition to multiply offices, to magnify details. Its opportunities afford no adequate incentive to industry; it does not regard economy; the wages it pays are excessive; its hours are short; its vacations are long; its supplies are bought, not with reference to their needs, but with a view to stimulate tastes and industries. It is extravagant. The losses it

* A. T. Hadley.

extreme. In Australia, where railroads are dominated by the government, it is said not to be an unusual occurrence for legislators to make investments in a particular district, and then proceed to obtain the construction of a road thereto, either by the government or under its bounty.

It does not require a fertile imagination to picture the advantages corrupt legislators may take wherever railroads are built or operated by the State. The incentive to make such properties the medium of personal aggrandizement will be constant and irresistible, but so insidious and hidden, so covered up, by one specious pretence or another, that the acts of the demagogue and rogue can not be distinguished from those of the upright legislator.

The government ownership and management of railways in Australia has been both curious and instructive. There is little in it to encourage those who favor government interference in such matters. "Construction of railroads in Australia failed as a private enterprise. Then each one of the five colonies took the matter up separately as governmental enterprises. . . . Their construction has been a source of grave charges of dishonesty, and their management a subject of popular complaint, especially among the farmers. Freight charges are much higher on the Australian railroads than on our American roads. The governments have been obliged to place their roads in the hands of commissioners, or 'general managers,' as we would call them, independent of parliamentary control. So that the Australian system is really one of quasi-govern-

Government management is the same everywhere—arbitrary, contracted, expensive, lacking in both business acumen and adaptability.

No commercial people, no people fond of affairs, have ever been benefited by government interference in business matters, least of all with railways. Trade is self-adjustive; conforms to its own laws and customs. Governments are not thus adaptive. They lack flexibility, the desire to meet the wants of a community that is born of a love of gain. Their management is everywhere attended with the same drawbacks—restricted competition, high rates, antiquated machinery, distrust of capital, absence of private endeavor. Government management of railroads is advocated as a means of redressing wrongs, of preventing unfair advantage, of securing reduced rates. It does not accomplish any of these things. Whatever was bad before it makes worse.*

A means of securing equitable rates is to restrict the profits of owners; to determine in advance the maximum amount they shall receive in the shape of interest and dividends. The purpose is not objectionable in itself, but commendable. But, like all interference with economic laws, its results are not what we expect. Far from it. Money thus diverted does not revert to the community in the

* The highest good that can attach to government intervention in a country whose people possess commercial spirit or enterprise, is to be found in a merely supervisory body, such as the Board of Trade of Great Britain, or the Interstate Commerce Commission of the United States.

but to an extravagant waste of capital. In fact, in this parliamentary limitation of dividend and capital, we have gone on a perfectly wrong track, and have involved ourselves in a maze of absurdities."

Much dissatisfaction, at one time and another, has been expressed, both at home and abroad, in regard to the management of the railroads of the United States. Many of the criticisms have been justified. But the fact remains that the management of these roads has been the most effective in the world; they have been prudently constructed and economically worked; the rates they charge are abnormally low; their service reasonably safe and effective. This is now generally recognized. Reductions in rates have gone hand in hand with economizations in construction and operation. Similar conditions do not attend arbitrary reductions in rates; they manifest themselves in fewer and slower trains, in poorly maintained properties, in lack of general interest and concern. Americans do not want low rates on such terms. Their commercial prosperity and supremacy depend, not in curtailing facilities, but in constantly increasing them. These are to be obtained, not by harassing the owners of railroads, but by protecting and encouraging them. They have given us the lowest rates in the world. If left unhampered, we may be assured that they will further reduce them as opportunity offers. Nothing is to be gained by interference. Directly the contrary. The owners of railroads do not need any such spur.

In no instance has State ownership of railroads answered the expectation of those who advocated it

CHAPTER XII.

GOVERNMENTAL CONTROL VERSUS PRIVATE CONTROL

— WHEN GOVERNMENT CONTROL IS DESIRABLE

— WHEN UNDESIRABLE — ITS TENDENCIES.

Among other reasons assigned why governments should own and operate railroads, and one much applauded, is that it will take them out of the hands of rich men; that the latter already are too powerful. This is very much like advising the people on board a ship to throw the pilot overboard, because of his prominence and the prerogatives he exercises. The rich men, including the honestly-striving-to-be-rich, are the commercial pilots of a nation, sagacious, progressive, and conservative. They are not only its safest advisers, but the only ones who have ability to forecast the future. They alone have surplus capital to invest or the courage to make new improvements. A nation without such men to advise and lead, is like a school without a teacher. They represent its accumulated experience and wisdom. They alone know how to make money, how to preserve it, how to invest it. They are the storehouse of a nation, the reservoir from which the stream that animates its industries flows.

If I were asked when government ownership and management of railways would be advisable, I should reply, when the self-interest and experience of indi-

viduals cease to be safe guides for men to follow in commercial matters. Government control can never be justified on the ground of the greatest good to the greatest number, from the standpoint of effective and economical management, or material prosperity. Government control is advisable when private property is not accorded protection; when the spirit of a nation is agrarian; when it does not afford justice and fair treatment to the owners of railroads. Then, undoubtedly, State ownership is preferable. Security in such a country is, at best, precarious. Mob rule, if not present, is near. Under such circumstances, property is safer (if anything can be safe), under governmental supervision and control than under private management. In a country thus cursed, the owners of railroads should sell to the State, lest their whole investment be confiscated. Let them make the best terms they can, and with the proceeds seek a more favored land. Neither personal liberty nor property can long be safe in such a country. The subversion of both is only a question of time.

In a country, however, blessed with equitable laws and a law-abiding people, no government organization that we can conceive of, no matter how perfect, will ever prove a fit substitute for the management of an active and alert people. This is true, both of railways and other property.

The practices of countries differ, as I have shown, in regard to railroads. In England the lines are owned by private parties. And while the government service is as good as any in the world, at once

with appointments or dismissals. Faithfulness and capacity are the governing forces. It lacks, however, the instinct of trade that those engaged in commercial affairs should possess. This is its weakness. It lacks the advice and directing force given by the owner in the case of private management. It lacks his genius for business. No amount of mechanical skill can compensate for this loss. It is irreparable.

In France, in consideration of certain guarantees and favors, it was originally agreed that the railroads should revert to the State at the expiration of one hundred years. The agreement was that the reversion should be without cost. But it was expected that the sinking funds that would be laid aside by the companies, meanwhile, would be sufficient to pay off their capital. The money for these sinking funds was not to be furnished by those who leased the property, of course. It was to be added to rates during the ninety-nine years. It was thus to come out of the nation. Superficially viewed, the transaction seemed very favorable to the State, but it was not so in fact. The State was required to pay for all it got with usury. The people of this century were to pay for those of the next.

Companies operated under a limited tenure are not so favorably situated as if the tenure were perpetual. Their interest is always a qualified one, and they can not be expected to maintain the property at a high standard as the expiration of the lease draws near. Thus the owner gains nothing, while he loses the interest and skill that attach to pro-

prietorship. The total cost of the French roads, it is apparent, was to be added to the expense of operating, during the one hundred years of the lease, in order to recoup those who furnished the money to build them. Such a burden could not but prove a great hardship to the nation, rendering it difficult, if not impossible, for it to compete with countries not thus handicapped.

The question of government supervision of railroads has been a subject of discussion ever since the first line was built. It has, however, few advocates in England or America. Men are too wise, too practical. They love, however, to coquette with the subject, to speculate upon it. But they show no disposition to embrace it. The risk is too great; too appalling. "It is not a question to be decided by an epigram or an analogy. It is a curious and intricate question, I might say, with more than two sides to it."*

One of the strongest reasons given for government ownership, is that the State can borrow money to build railroads at a less rate than private parties. This is, undoubtedly, true in the majority of cases. But whether it would remain true or not, if governments undertook to discharge great affairs of business, is doubtful. Their credit is good, simply because their transactions are limited and their resources great.

The greatest disadvantage, in my judgment, that attends State control of railroads is the loss of the

* Edward Everett Hale.

experience, interest, and skill of the private owner. No advantage can compensate for this loss.

In the case of State ownership, money raised to build railroads should not be merged with the general indebtedness of a nation. Such burdens should be borne by the districts benefited, and not by the general public. The interest on the cost of every railroad should be met by the district immediately benefited; also any attendant losses. In the case of government control, as in the case of private management, properties must be operated with a view, not only to paying expenses, but interest on cost. Their affairs can not be bulked with other concerns. In no other way can we determine whether a property is managed efficiently or not. Such separation is absolutely necessary to effective supervision. Without it, the grossest extravagance may characterize a management without the fact ever being known.

The success of governments in handling mails and other limited enterprises, has been cited as an evidence of their ability to handle railroads successfully. The comparison is hardly fair. Handling the mails is largely mechanical, while the other requires active and harmonious coöperation with mankind in all its commercial ventures and journeyings. The administration of the post office by the government of the United States has not been financially successful. Enormous deficits have characterized its management in every stage. Its failure, moreover, would have been much greater, would have been still more apparent, except for the

CHAPTER XIII.

THE TENURE OF RAILROADS UNDER THE LAW—THE INTERSTATE COMMERCE LAW OF THE UNITED STATES—THE REQUIREMENTS OF THE ENGLISH LAW.

The railways of the United States are incorporated under general or special laws. Permission is first granted to subscribers to the capital stock to form a company. Thus incorporated, the personal responsibility of the owner is limited. Attached to incorporation is the right to sue and be sued; to acquire, by condemnation, land and property situated thereon; to charge for services performed; to enforce rules and regulations, and do other things that the business requires. The various States have, from the first, arrogated to themselves the right to enforce such regulations as seemed to be necessary to the convenience and safety of the people. The conditions under which capital was induced to subscribe to railway enterprises, have been generally respected by the government. Some of the notable exceptions to this rule I have noticed.

The inception of railway enterprise is so recent, and its development so great and unexpected, that it is unavoidable the government should not, in every case, have apprehended fully the situation of affairs; that it should not have always understood

she has made in these enactments have, in every case, been mutually agreed upon by all parties in interest in advance. They have been such as commend them to honorable men. Each railroad of Great Britain, it should be remembered, is created by special act of Parliament; the government claims and exercises the right of veto in the location of a road; the right to inspect and accept it, before it shall be opened for business; to see that necessary measures are taken to secure the safety of the public;* to enforce proper and equal facilities for all; to prevent discrimination in rates; to reduce rates when the return on the property exceeds the percentage agreed upon; to require rates to be posted at stations; to require all freight offered for transport to be received, unless it be dangerous; to require railroads to allow the use of their tracks to persons who wish to provide their own equipment and motive power; to require at least one train a day to be run each way; to require a uniform rate to be charged to passengers, according to the accommodation furnished, allowing a given amount of baggage free in each case; to require the adoption of a standard gauge; to carry soldiers, police, public baggage, and government stores at fixed rates; to run such mail trains as the postmaster general shall require; the right to inspect the property and equipment whenever thought proper; to make regulations for handling the traffic at junctions in a safe manner; and, finally, to limit the return on the

* Railroads in the United Kingdom are liable, as in America, under both common and special law, for injuries to persons and property.

CHAPTER XIV.

MUTUALITY OF INTEREST IN THE PROSPERITY OF RAILWAYS.

Having pointed out the more important principles that govern the affairs of railroads, and the conditions necessary to the economical and efficient management of such properties, it may be proper to say a word in regard to the concern the community has in their prosperity. It is special and perpetual. The multitude of details incident to the conduct of railroads, while embracing many things that are peculiar, are, in the main, common to every business and of general interest. So far as concerns the construction and keeping in order of the plant, it is not noticeably different from that of other manufacturers. They are liberal consumers of the products of others, and generous and continuous patrons of labor. Their disbursements cover an infinite number of things, and have three purposes in view: the construction of the property, and its successful maintenance and operation. These disbursements embrace every variety of object, from the purchasing of land for tracks, stations, and shops, to the payment of employes; from the erection of mammoth warehouses to the planting of shade-trees; from the purchasing of a locomotive to the procurement of a tin cup; from the purchasing of a cargo

sequent capitalization. Such a policy can have but one end. If the property should ever be able to earn a return on its full cost, it will quite likely be prevented from doing so, because of the difficulty of making the cost appear. The facts will not be known, or if known, public sentiment will forbid the capitalization; it will say to the owner: "Do you want to rob us? We know nothing about these old construction accounts you seek to revive. They are nothing but 'water.' You must not capitalize them or attempt to pay dividends thereon."

The instances where a company is obliged to discredit its future, by suppressing reference to its construction work, are not general. They will grow less frequent with the development of the country. As we grow in riches and acquire greater knowledge of financiering, capitalization and expenditure will go hand in hand. But there will always be more or less money spent for construction purposes that can not be capitalized. The limitations of accounts are such that the full cost of a property can never be made to appear on the books of a company or in its returns, no matter how desirous the owners may be that it should. The reason is well known to those familiar with such matters. The construction accounts of a railroad are peculiar. In many cases, the accountant can not separate that which comes under such head from that which comes under the head of operating. When this is so, the amount is charged to the latter, or mainly to that account. However, the rule is not universal. It is probable that items have been charged to construction that

fair return on cost. Some of them earn a return on their capital. But capital and cost travel far apart. Whether the railroads of the United States will ever be financially able to issue shares or other evidence of cost to cover unrepresented values, or whether they will be permitted to do so, if able, it is impossible now to tell.

Of all accounts, the construction account of a railroad is the most difficult to keep.* Only those familiar with such matters know how difficult it is to separate construction from ordinary working expenses. Trustworthy returns require circumstantiality and accuracy, and accuracy can not be expected, except approximately, as a large number of those whose duty it is to furnish the data, possess no knowledge whatever of their duty in this respect, nor aptitude in acquiring it.

In renewing and improving a property, many things enter into cost beside the principal items of labor and material. Thus, in replacing a temporary with a permanent structure, we must ascertain what is a reasonable charge for use of tools, value of implements lost or damaged, transportation, use of engines and cars, superintendence, accounting, etc., etc., and when the work is done, the cost of the structure replaced must be deducted from the whole. Many items entering into cost of construction are so mixed up with operating expenses that they can only be approximated. This requires careful analysis, and, in many instances, exhaustive

* This account will be referred to more at length and particularly in "Disbursements of Railways."

It is quite probable they have carried this policy too far; that they have been much too deferential to the demagogues who harass them; have offered too little resistance to acts of injustice and oppression. Indeed, their timidity has oftentimes been so marked that it has suggested attack—has invited interference and oppression.

arrangements with surrounding lines, the talent, experience, and adaptability of those who operate them.

I will enumerate some of the things that prevent a separation of the traffic of a nation on imaginary or arbitrary lines. And first, in order to separate local from through traffic, it is essential that all business (including passenger as well as freight), shall be followed in the accounts, from the point of departure to the place of final destination. Whenever this is not done, or can not be done, the separation will be doubtful and at best only partial. A bag of potatoes consigned to a merchant at Syracuse, N. Y., shipped from Utica, N. Y., is presumably State traffic, but the passenger ticketed from Syracuse to New York City, while apparently local, may, in reality, be pursuing an uninterrupted journey to some remote State or Territory. Herein lies the difficulty in a nutshell.

The devices of railroads for handling their traffic are such as their necessities impose, coupled with the legitimate requirements of business. Each road is compelled to treat the bulk of its traffic as an entity; as if it originated and terminated upon its line. It is not practicable to do otherwise. In a country of restricted territory, like that of Great Britain, where the mileage of railroads is relatively small and communication between the most remote points requires but a few hours, it would seem as if traffic might be billed through without serious risk or expense to the carrier. But it can not. The exceptions are both general and marked. In the

sent by the railways to the Board of Trade; also of collisions, in which a passenger train is involved; also of derailments; also of accidents of any kind, which have or may cause loss of life or personal injury. The Board of Trade is required to inquire into accidents, and make formal investigation thereof; the inquiry must be conducted publicly, and for this purpose the board possesses judicial powers. Its conclusions and reports thereon must be published.

In 1889, the Board of Trade was given authority to order passenger railways to adopt the block system;* to provide for the interlocking of switches and signals;† to use continuous automatic brakes.‡ To meet the expense of this, the board may authorize railway companies to issue debentures or debenture stock, bearing interest at a rate not exceeding five per cent.

Railway companies are required to furnish the Board of Trade periodical returns as to the persons in their employment, whose duty involves the safety of trains or passengers, who are employed for more than such number of hours at a time, as may be from time to time named by the board.

*In December, 1890, the percentage of double-track road used for passenger traffic, operated on the absolute block system, was 98½ in England and Wales, 100 in Scotland, and 85 in Ireland.

† The percentage of switches, grade crossings, etc., properly interlocked, was 95 in England and Wales, 87 in Scotland, and 65 in Ireland.

‡ The use of continuous automatic brakes on passenger trains has been made compulsory on practically every mile of road in Great Britain.

anything done or omission made in violation of the law requiring railway companies to receive and forward traffic without partiality or unreasonable delay, and to grant equality of treatment where railways operate steamships, etc. This commission is empowered to fix terminal charges; has control over agreements between railway and canal companies, etc. It also has power to direct that no higher charge shall be made to any person for services, in respect of merchandise carried over a less distance, than is made to any other person for similar services, in respect of the like description and quantity of merchandise carried over a greater distance, on the same line of railway.

THE STATUS OF RAILWAYS IN CANADA.

The present status of railroads in Canada is embodied substantially in two acts of Parliament, the first in order of date having been passed in 1886, having relation only to the sale of passenger tickets. The second, which is comprehensive, came into operation in 1888. It was the result of conclusions arrived at by a royal commission appointed to inquire into the subject. Its conclusions will be of especial interest to the American reader, because it had under consideration the Interstate Commerce act of this country, which had at that time already come into operation. In reporting to Parliament, the commission in question thus stated its conclusions in reference to legislation affecting tariffs. It said: "The commission have carefully considered all the

or haulage; traffic arrangements; interchange of freight; unjust preferences, discrimination, and extortion, and any matters, acts, or things sanctioned, required to be done, or prohibited by the law.

Under the law, railway companies are authorized to fix and regulate rates, but it provides that they shall always, under the same circumstances, be charged equally to all persons. The rates for large quantities or long distances may be proportionately less than for small quantities or short distances, if such rates are under the same circumstances charged equally to all persons; but in regard to quantity of freight, no special rate is allowed for less than one car-load of at least ten tons. Railway companies are compelled to conform to any uniform classification of freight which is from time to time prescribed. Rates must be approved by the governor, and, with the order approving same, must be published in the official *Canada Gazette*; they may be revised by the governor. Railways must post rates in their offices and at places where they are collected. Unjust or partial discrimination is prohibited, but discrimination between localities, which, by reason of competition between water or railways, it is necessary to make in order to secure traffic, is expressly stated not to be unjust or partial. Secret special rates, rebates, drawbacks, and concessions are prohibited.

Arrangements between different companies for the interchange of traffic and for the division of rates, etc., for any term not exceeding twenty-one years, may be made by the companies interested, but they must be made with the consent of two-

thirds of the stockholders, and are subject to the approval of the governor. Before the approval of the governor is given, the fact that he will be applied to therefor must be published in the *Canada Gazette* for two months.

Facilities for interchange of traffic are to be afforded by railroads to each other, and they are prohibited from exercising unreasonable preference in such matters.

Railways allowing express companies to operate over their lines, must grant equal facilities on equal terms to any other incorporated express company demanding the same.

Railways are forbidden to buy their own stock or the shares, bonds, or other securities of other railways in Canada.

Railways are required to make annual returns to the minister of railways in the form provided by the act. Each railway company must also each week prepare returns of its traffic for the preceding seven days, in the form provided in the act, and file one copy of same with the minister of railways, and post another copy thereof in some conspicuous place in the most public room in the head offices of the company, so that it can be perused by all persons.

Railway companies are prohibited from declaring dividends to be paid out of capital, or whereby the capital is in any degree reduced or impaired. They may, however, until the railway is completed and opened, pay interest not exceeding six per cent. on money subscribed.

companies unaided, and by the general government and private owners conjointly. There have been leases of State roads to private companies; surrenders of State lines to private companies; competition between State and private roads; schemes of nationalization, and provision made for governmental purchase.

The French railway system dates from 1842. In that year an act was passed for the "Establishment of grand lines of railroad." The lines were to diverge from the capital, Paris, and this conception still governs. The cost of construction was to be borne in part by the general government, in part by the local districts through which the roads passed, and in part by the companies operating them. The latter contributed about one-half of the cost. At the expiration of a given period, about thirty-six years, the roads were to become the absolute property of the State. This latter part of the plan did not, however, come into effect because of the financial crisis in 1847, and the political revolutions intervening, which stopped railway construction. It then became necessary to make new arrangements, and under a law passed in 1859, the State assumed supervision over all railway construction; it also took cognizance of rates. This act forbade discrimination, and under it the French railway system became of a dual character—owned partly by the State and partly by private companies. Under this law, it was provided that all railways should become government property in about 1950. The plan of mixed ownership was not found to work satisfac-

THE STATUS OF RAILWAYS IN AUSTRIA-HUNGARY.

In Austria, more than a third of the railways are owned by the government. The residue is owned by private companies. Concessions, or charters for the construction of railways, expire at a stipulated period not exceeding ninety years. Upon their expiration the lines, lands, and buildings revert to the State, but the equipment remains the property of the company. Before a railway is opened it must be approved by the minister of commerce. The tariffs of State roads are fixed by the government; those of private companies are subject to revision by the government every three years, and the government has power to reduce rates, if the net earnings exceed fifteen per cent. In most cases, the maximum rates of private roads are fixed in their charters, and where this is not the case, the government fixes the maximum. Unjust discrimination is prohibited and publication of rates is required. Special rates are allowed, subject to the approval of the government. The police regulations made by the government for the roads are binding upon private companies. The government is empowered to exact any information it requires from private roads, and each road must keep a "book of complaint" at each station, in which patrons may enter their grievances. Private companies must furnish the government with a list of all officers and employes, and must keep their accounts under the general supervision of the government.

The Hungarian railways are owned entirely by the State.

The Hungarian zone system is described as follows: "Each railway is divided into sections, called zones; and, all the railways having a common center at Buda-Pesth, the zones are established to and from that center. The first zone is shortest, extending a distance of twenty-five kilometers from the starting-point; the second, and each succeeding zone, up to the twelfth, is fifteen kilometers longer than the zone immediately preceding it; the twelfth and thirteenth zones are each twenty-five kilometers longer than its immediately preceding zone, and all distances exceeding 225 kilometers from the starting-point are included in a single zone, the fourteenth. Passenger rates are fixed, not per mile or kilometer, but at so much per zone, the charge for every fraction of a zone being the same as for a full zone. The effect of the system is a constantly diminishing rate per mile, or per kilometer, in proportion to distance traveled. On certain classes of trains, special local rates are made to the first and second stations from the starting-point, regardless of the zone system; also, after the twelfth zone is passed, the rate per zone, or part of zone, is slightly increased." *

from studying the individual needs of men, and in those cases where he is not, the rules and regulations that surround him, prevent him making any exceptions. It is because of this disposition and environment that he is disposed to look upon the efforts of common carriers to satisfy the individual needs of patrons as unjust discrimination. Unhappy the country whose commerce is hampered by the meddling of government servants! With the best intentions in the world, coupled with executive talents of the highest order, they utterly lack the adaptable qualities that those who have to do with trade must possess.

* "Fourth Annual Report, Interstate Commerce Commission," page 245.

The Austrian zone tariff (which differs from the Hungarian for the reasons given), is not limited to lines radiating from the capital, and the rates are measured by kilometers as before, though this measurement is modified by the principle of zones. It may be described as follows: "The first five zones from the starting-point are each ten kilometers in length; the next two are fifteen kilometers each; the eighth is twenty kilometers; the following four are twenty-five kilometers each, and all zones above the twelfth are fifty kilometers in length. From the starting-point to a point within any one of the zones, the charge is at a fixed rate per kilometer to the farthest limit of that zone. . . . A third-class ticket to any point within the first zone of ten kilometers' length is ten kreutzers.* . . . The average rate to any point in the second zone is one and one-third kreutzers per kilometer, while the rate to the farthest point of the zone is one kreutzer per kilometer. The average rate to any point in the third zone is one and one-fifth kreutzers per kilometer; in the fourth zone, one and one-seventh kreutzers per kilometer; in the fourteenth zone, one and one-eleventh kreutzers per kilometer. The charge to the farthest limit of any zone is always at the rate of one kreutzer per kilometer."†

* A kilometer is 3,280 feet; a kreutzer is about four-tenths of a cent.

† "Fourth Annual Report, Interstate Commerce Commission," page 848.

THE STATUS OF RAILWAYS IN BELGIUM.

With minor and unimportant exceptions, Belgian railways are owned and operated by the State. The roads not now owned by the government will, under the terms of their charters, ultimately revert to it. Railway affairs are administered by a government department of "railways, post offices, and telegraphs," under the laws of the kingdom. The laws regulate tariffs. Railways are exempted from taxation.

THE STATUS OF RAILWAYS IN SPAIN AND PORTUGAL.

The railways in these countries are owned and operated by private companies. Most of them, however, have been aided by the government by subsidies or guarantees. Where such aid has been granted, it has always been conditional upon the roads reverting to the government in ninety-nine years.

THE STATUS OF RAILWAYS IN ITALY.

The railway problem in Italy has been a vexed one. Speaking of Italy's experience, Professor Hadley says:* "Italy has tried both State railroads and private railroads; has tried almost every possible relation between the State and the railroads. Each of three or four main systems received its original charter from a different govern-

* "Railroad Transportation," page 220.

INDEX TO AUTHORITIES QUOTED.

	PAGE
Acworth, W. M., M. A	76, 83, 236
"The Railways and the Traders."	
Adams, C. F	225
Alexander, E. P	86
"Railway Practice."	
Atkinson, Edward	63, 73, 75, 288
"The Distribution of Products."	
Blanchard, G. R	61
"Politico-Railway Problems and Theories."	
Brewer, Judge	124
Cohn, Professor	99
Colson, C., of the Government Council of the French Rail- way Service	96
Committee of State Railroad Commissions and Interstate Commerce Commission	70
Cooley, Judge T. M., Chairman Interstate Commerce Com- mission	157, 158, 166
Cullom, Senator Shelby M	262
Curtis, George Ticknor	93
"The Doctrine of Presumed Dedication of Private Property to Public Use."	
Dabney, W. D. 54, 87, 123, 124, 125, 126, 127, 128, 135, 155, 157	
"The Public Regulation of Railways."	
Depew, Hon. Chauncey M	261
"Die Nation"	247
Dorsey, E. Bates, Member Am. Society of Civil Engineers.	169, 243

Walker, Aldace F., Ex-member Interstate Commerce Commission, Chairman Interstate Commerce Railway Association.....	75, 159, 275, 281
Wisconsin Railroad Commissioners' Report, 1874.....	296
Woodman, Edwin E.....	69
Paper read before Engineers' Society of St. Paul.	

In addition to the foregoing, the writer is indebted to the following gentlemen, whose views on questions discussed in this book have been profitable to him in elucidating the subject:

HON. WILLIAM R. MORRISON,
 MR. T. B. BLACKSTONE,
 MR. CORNELIUS VANDERBILT,
 SENATOR JOHN SHERMAN,
 MR. MARVIN HUGHITT,
 EX-PRESIDENT HARRISON,
 SENATOR JOHN H. REAGAN,
 MR. J. W. MIDGELY.

THE SCIENCE OF RAILWAYS

BY MARSHALL M. KIRKMAN.

"THE SCIENCE OF RAILWAYS" DESCRIBES THE METHODS AND PRINCIPLES CONNECTED WITH THE ORGANIZATION, LOCATION, CAPITALIZATION, CONSTRUCTION, MAINTENANCE, OPERATION AND ADMINISTRATION OF RAILROADS.

IN TWELVE VOLUMES, COMPRISING BOOKS ON

Railway Equipment.	Fiscal Affairs; Collection of Revenue.
Railway Organization.	Principles Governing Collection of Revenue.
Financing, Constructing and Maintaining.	Fiscal Duties of Agents and Conductors.
Train Service.	General Fiscal Affairs.
Passenger, Baggage, Express and Mail Service.	General Fiscal Affairs and Statistics.
Freight Business and Affairs.	Payment of Employees of Railroads.
Disbursements of Railways.	Treasurer's Office.
Economical Purchase, Care and Use of Material.	The Relief Department of Railroads.
Fiscal Affairs; Expenditures.	Origin and Evolution of Transportation.
Economic Theory of Rates; Private versus Government Control of Railroads.	Engineers' and Firemen's Manual—General Index.

"If every young man engaged in railway service would read carefully 'The Science of Railways' and apply the information obtained therefrom to his every day service, it would be of inestimable value to the individual as well as to the company he serves."—H. C. BARLOW, President, Evansville and Terre Haute Railroad.

"I am glad to recognize in them a distinct benefit rendered to the railway service of the country by their publication. It was particularly felicitous that such a work should be undertaken by a gentleman of so well established a reputation in all matters pertaining to railway organization and management. One of the features of the books that commends them especially is the simple and concise diction, thus placing them within the understanding of a vast number of employees who are not reached by the more elaborate and technical treatises of specialists in the different branches of the service."—COLONEL S. W. FORDYCE, President, St. Louis Southwestern Railroad Co.

"Mr. Kirkman in his work has substantially covered the entire science of building and operating railroads. . . . The books ought to be in the library of every professional railroad man, young or old."—J. D. LAYNE, Second Vice-President and General Manager, West Shore Railroad.

"While I have been a reader of Kirkman's earliest publications, and looked upon them as having merit in the highest degree, I am free to confess that I did not appreciate the real importance of the work for the railway profession generally until I have had the opportunity to examine 'The Science of Railways.' No publication pertaining to the practical operations of railroads has ever come to my attention that is of so great importance to the railway operatives as are these twelve volumes. No man making railroad his profession should be without them."—C. W. SMITH, formerly General Manager, Atlantic and Pacific Railroad.

"It affords all classes of railroad employees and students of railroad transportation an unsurpassed opportunity to profit by the experience of one so competent in that line, and to become the possessor of knowledge otherwise only obtainable by long years of close application and hard labor."—M. RIEBENACK, Assistant Comptroller, Pennsylvania Railroad Company.

"It is something that every railroad man, regardless of his position in the service, should have."—D. L. CHASE, Editor, *Railroad Trainmen's Journal*.

"The first attempt to treat the immense field in a systematic manner and carry it through along sharply marked division lines. Mr. Kirkman has studied deeply into the subject."—*Railmaster and Foreman*.

PUBLISHED BY
THE WORLD RAILWAY PUBLISHING COMPANY,
CHICAGO, ILL.

